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The National Nurseman.

FOR GROWERS AND DEALERS IN NURSERY STOCK.

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VOL. VI.

ROCHESTER, N. Y., FEBRUARY, 1898.

No. 1.

BILL IN CONGRESS.

Joint Committee of Nurserymen, Entomologists and Horticulturists Agrees Upon a Measure to Regulate Importation of Stock and Shipment Between States—Before the House.

A bill for the regulation of the shipment of nursery stock and fruit into this country, and the shipment of nursery stock between the states, has been introduced in the House of Representatives at Washington, and in all probability will become a law.

On January 18 the following gentlemen met by appointment in Washington: C. L. Watrous, Des Moines, Ia.; Silas Wilson, Atlantic, Ia.; N. H. Albaugh, Tadmor, O., and Irving Rouse, Rochester, N. Y., comprising the committee on legislation of the American Association of Nurserymen; Professor William B. Alwood, state entomologist of Virginia; Professor W. G. Johnson, state entomologist of Maryland; E. M. Wardall, Los Angeles, Cal., of the State Board of Horticulture. The object of the meeting was the drafting of a bill, upon which all could agree, for the regulation of the San Jose scale. After some discussion the bill drafted and approved by the American Association of Nurserymen was taken as a basis for operation. In a comparatively short time an agreement was reached. Mr. Wardall was anxious that fruit shipped into this country should be subject to inspection, and sections 1 and 2 of the bill were worded so as to provide for such inspection. Sections 3, 4, 5, 6 and 7 of the bill drafted at St. Louis last June were not altered, except to provide in section 3 that the inspection shall be made by a qualified entomologist. The bill is as follows:

A BILL

To provide rules and regulations governing the importation of trees, plants, shrubs, vines, grafts, cuttings, and buds, commonly known as nursery stock, and fruits into the United States; and rules and regulations for the inspection of trees, plants, shrubs, vines, grafts, cuttings, and buds, commonly known as nursery stock, grown within the United States, which become subjects of interstate commerce or exportation.

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, That it shall be unlawful for any transportation company, after October first, eighteen hundred and ninety-eight, to offer for entry at any part in the United States any trees, plants, shrubs, vines, grafts, cuttings, and buds, commonly known as nursery stock, unless accompanied by a certificate of inspection by a government official of the government from which the exportation was made, which certificate shall be made in the manner and form prescribed by the secretary of agriculture, certifying that the contents have been examined and found apparently free from all insect and fungous diseases dangerously injurious to nursery stock. In case any nursery goods are offered for entry without said certificate, it shall be the duty of the collector to refuse to accept them for entry, and shall not allow them to pass within the jurisdiction of the United States. And after the aforesaid date, October first, eighteen hundred and ninety-eight, all nursery stock imported in accordance with the aforesaid regulations shall be free from all inspection, quarantine, or restrictions in interstate commerce.

SEC. 2. That whenever it shall appear to the secretary of agriculture

that any variety of fruit, grown outside of the United States or District of Columbia, is being, or is about to be, imported into the United States or the District of Columbia, and such variety of fruit is infested by any seriously injurious insect or disease, and which insect or disease is liable to become established in the United States and seriously affect any variety of fruit grown therein, he shall have authority to quarantine against any such variety of fruit and prevent the importation of the same until such time as it may appear to him that any such insect or disease has become exterminated in the country whence such fruit is being, or about to be, imported, when he may withdraw the quarantine; and this shall operate to relieve such fruit from further quarantine or restriction, so long as the condition of freedom from seriously injurious insect or disease shall continue.

SEC. 3. That all trees, plants, shrubs, vines and buds, commonly known as nursery stock, grown within the United States, may become subjects of interstate commerce under the rules and regulations as hereinafter provided. The secretary of agriculture shall cause to be inspected by a qualified entomologist all trees, plants, shrubs, vines, and buds, known as nursery stock, which are subjects of interstate commerce, and which are about to be transported from one state or territory or the District of Columbia into another state or territory or the District of Columbia. This examination shall be made prior to September first of each year, in the manner provided for and prescribed by the secretary of agriculture; and if such nursery stock is found to be apparently free from dangerously injurious insects or diseases, the certificate of the officer making such examination and finding shall be issued to the owner or owners of such nursery stock, a copy of which certificate shall be attached to and accompany each carload, box, bale, or package, and when so attached and accompanying shall operate to release all such nursery stock from further inspection, quarantine, or restrictions in interstate commerce.

SEC. 4. That it shall be unlawful for any person, persons, or corporation to deliver to any other person, persons, or corporation, or to the postal service of the United States (except for scientific purposes or by permission of the secretary of agriculture), for transportation from one state or territory or the District of Columbia to any other state or territory or the District of Columbia, or for exportation to any foreign country, any trees, plants, shrubs, vines, or other nursery stock which have not been examined in accordance with the provisions of section three of this act, or which on said examination have been declared by the inspector to be dangerously infested with injurious insects or diseases. Any person, persons, firm, or corporation who shall forge, counterfeit, or knowingly alter, deface, or destroy any certificate or copy thereof as provided for in this act and in the regulations of the secretary of agriculture, or shall in any way violate the provisions of this act, shall be deemed guilty of a misdemeanor, and on a conviction thereof shall be punished by a fine not to exceed five hundred dollars nor less than two hundred dollars, or by imprisonment not to exceed one year, or both, at the discretion of the court.

SEC. 5. That the rules and regulations herein provided for shall be promulgated on or before the first day of July of each year.

SEC. 6. That the sum of one hundred thousand dollars, or so much thereof as may be necessary, is hereby appropriated out of any moneys in the treasury of the United States not otherwise appropriated, to carry into effect the provisions of this act.

SEC. 7. That this act shall take effect on and after the thirtieth day of June, eighteen hundred and ninety-eight.

WORTH MORE THAN THE PRICE.

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THE HORTICULTURISTS.

Nine Societies Hold Annual Meetings—Nurserymen in the Front Rank at All of Them—New Jersey, Kansas, Vermont, Pennsylvania, Illinois, Nebraska, Ontario, Western New York and the Northwest.

The Kansas State Horticultural Society held its thirty-first annual meeting at Topeka, December 28-30. President Fred Wellhouse and other prominent fruit growers were present. Much discussion arose on the culture of the apple. B. F. Smith, Lawrence, spoke of new fruits and nomenclature. He said less improvement in apples has resulted than in any other fruit. A. H. Griesa, Lawrence, urged the weeding out of worthless fruits. J. W. Knodel, Woodruff, discussed the growth of evergreens in Northwestern Kansas. J. F. Cecil, Topeka, reported on small fruits. William Cutter, Junction City, reported on peaches and grapes, and A. L. Brooke, North Topeka, on legislation. Edward Taylor, Edwardsville, thought the question of dealing with insect enemies should be left to the enterprise of individuals. Mr. Brooke thought there should be legislation to authorize a state entomologist to inspect nurseries and orchards. "I think San Jose scale a serious thing, and most uncomfortably close to us," said he, "and it will be closer. We should make a strong effort to combat scale." Other nurserymen present were: Mr. Holman, of Leavenworth; Mr. Stannard, of Ottawa; W. J. Peters and J. H. Skinner, North Topeka; L. R. Taylor, Topeka, and E. Albertson, Ind.

Professor H. E. Van Deman described Kansas' rank in horticulture.

Reports from the various counties on insects show them pretty general over the fruit area. No San Jose scale was reported, but codling moth, plum and apple curculio, tent caterpillar, fall web worm and root louse are numerous.

The following officers were elected: President, Hon. Fred Wellhouse, Topeka; vice-president, Hon. J. W. Robertson, El Dorado; treasurer, Major Frank Holsinger, Rosedale; secretary, William H. Barnes; entomologist, E. A. Popenoe.

VERMONT.

The second annual winter meeting of the Vermont Horticultural Society was held at Middleburg January 11th and 12th, and was a great success. The attendance was not very large, but the programme was good and the papers exceptionally meritorious. The discussion over apple growing, spraying, insects, grape culture and plum growing were especially energetic and interesting. Considerable dissatisfaction was expressed with the present list of market apples; though general opinion favored Baldwin, R. I. Greening, Northern Spy, York and Fameuse. The Vermont growers of Arctic were not represented at this meeting. Railroad worms and tent caterpillars have been giving a good deal of trouble and much anxiety is felt about the San Jose scale.

C. A. Hinsdill gave a live paper on grape growing. Moore's Early, in his opinion, is best of all grapes for Vermont. He recommended also Worden, Delaware, Diamond and Green Mountain. Some combination of spur and renewal pruning is usually best, but most folks don't prune enough.

Professor F. A. Waugh gave an illustrated lecture on "The Fine Art of Gardening," advising the selection of common hardy plants for ornamental planting and their arrangement in

simple groupings, instead of in helter-skelter, unmeaning mixtures.

J. E. Crane spoke highly of Japanese plums, several varieties of which he has fruited. He specially recommended Red June, Abundance, Burbank. All these are hardy and reliable in Vermont. They are comparatively, but not quite, free from black knot and curculio.

L. M. Macomber has had best success with American plums, especially Americana and Chickasaw varieties. The latter are mostly quite hardy, especially after they become established. Pottowattomie has been a constant and successful bearer. DeSoto and Wolf have also proved profitable.

A. A. Halladay has made money with plums, especially with Lombard and the Japans. Of the latter, Burbank seems to be best and most profitable. He has proved by extended experiments that close pruning and careful thinning of the fruit are very profitable operations in plum culture.

The old officers were re-elected as follows: T. L. Kinney, president, and F. A. Waugh, Burlington, secretary. Among the nurserymen of the society present were Charles A. Hinsdill, North Bennington; Luther Putnam, Cambridge; F. W. Spicer, East Enosburgh; T. H. Hoskins, Newport.

PENNSYLVANIA.

The thirty-ninth annual meeting of the Pennsylvania State Horticultural Society was held at Lancaster, January 18-19. Among the nurserymen present were Calvin Cooper, Bird-in-hand; W. P. Brinton, Christiana; Howard A. Chase, Philadelphia; W. B. K. Johnson, Allentown; William H. Moon, Morrisville; J. G. Engle, Marietta; John F. Rupp, Shiremanstown; T. C. Woods, Harrisburg; Thomas Rakestraw, J. W. Pyle, Willowdale. Professor S. B. Heiges, U. S. pomologist, president of the society, and Dr. George G. Groff, of Bucknell University, gave the society the benefit of their special knowledge. The latter discussed the outlook in the state regarding San Jose scale.

J. W. Kerr, of Denton, Md., read an excellent paper on "The Future of Plum Culture." He said: "We are still struggling with the alphabet of its culture, but with rational methods and conservative plans, plum growing may become profitable to the raiser." Mr. Kerr has an orchard of over 7,000 plum trees. In answer to a question as to what native variety he would recommend for planting, he replied that the Charles Downing, the Milton, the Whitaker, Chickasaw, Smiley and Wild Goose are to be preferred.

The following officers were elected: President, S. B. Heiges, York; first vice president, Howard A. Chase, Philadelphia; second vice president, Calvin Cooper, Bird-in-Hand; third vice president, Gabriel Heister, Harrisburg; recording secretary, Cyrus F. Fox, Reading; corresponding secretary, W. P. Brinton, Christiana; treasurer, J. Hibbard Bartram, Milltown. Harrisburg was selected for the next place of meeting.

NEW JERSEY.

The twenty-third annual meeting of the New Jersey Horticultural Society was held at Trenton January 5th and 6th. Professor John B. Smith, state entomologist, spoke on "Insects Injurious to Fruit in 1897." Among other things, he said:

I know that you all expect to hear something of the San Jose scale. I am happy to be able to say that I believe that the insect can be controlled with comparatively little trouble, but will say at once that no such thing as extermination now is possible in this state, though it is possible to completely rid one or a hundred trees or an entire orchard,

which is quite a different thing from exterminating it. My chief reason for saying that the insect cannot now be exterminated is that it has become established everywhere in the region between Burlington and Camden, from the Delaware to a line anywhere from five to ten miles back. It is certain that it has been spread into old orchards, and it is more likely that there exist many points of infestation which are as yet unknown. There is a very large shore colony in Monmouth county. The red shale lands of the state are as free from the scale as any land known. We must deal with the scale as a native insect in the future. We must recognize the fact that it is one more enemy to be fought by the fruit-growers, but at the same time there is no reason why that enemy should not be conquered like others.

We know that kerosene will kill San Jose scale at any time of the year wherever it touches them. It will not harm plant life if not used in excessive quantity or under such circumstances as to prevent evaporation. Kerosene mixed with soap makes a mixture which will not readily allow the kerosene to evaporate. The kerosene must be put on in the finest possible spray and no more used than is absolutely necessary to wet. To show what I mean, I say that with an atomizer holding one pint I covered completely a pear tree in full foliage ten feet in height and with a diameter through the branches of fully five feet. The application cost but one cent for foliage. Whale oil soap is not so effective as kerosene in penetrating the crevices. There is one point not quite settled, and that is the effect of kerosene upon fruit buds.

Professor L. H. Bailey discussed over-production of fruit, and David Baird, of Baird, urged the thinning of peaches, apples, pears and plums. Assistant U. S. Pomologist W. A. Taylor spoke on "Commercial Small Fruit Culture in the Middle States." Ira J. Blackwell urged the beatifying of the farmer's home surroundings.

David Baird offered a resolution favoring the passage of a law to provide for the appointment of an inspector whose duty it shall be to inspect the stock of nurserymen for plant diseases, in order that he may give certificates as to the condition of the stock. One of the great needs of such an inspector is to permit the sale of Jersey stock in states where a certificate is required. The resolution was referred to the State Board of Agriculture.

The following officers were elected: President, Samuel B. Ketcham, Pennington; vice-president, David Baird, Baird, Monmouth county; secretary, H. I. Budd, Mount Holly; treasurer, Charles L. Jones, Newark. On the executive committee are the following nurserymen: E. P. Beebee, Elizabeth; Ira J. Blackwell, Titusville. On other committees, Samuel C. DeCou, Moorestown; Hiram T. Jones, Elizabeth.

NEBRASKA.

The twenty-ninth annual meeting of the Nebraska State Horticultural Society was held at Lincoln January 11-13. As usual, the nurserymen were in the front rank. President G. A. Marshall of Arlington, presided. E. F. Stephens, of Crete, read the first paper on the programme, discussing "Orcharding in Irrigated Districts." George L. Allen of Leigh, read a paper on currants. Red Dutch, White Grape, Cherry, Victoria and La Versailles were the varieties named in the order of their profit. Ex-Governor R. W. Furnas of Brownville, and ex-Secretary of Agriculture J. Sterling Morton of Nebraska City, made brief speeches.

Professors F. W. Taylor and F. W. Card of Lincoln, members of the American Association of Nurserymen, discussed horticultural societies and spraying respectively. Professor Taylor has charge of the horticultural department of the Omaha exposition. It was largely through his eloquence and brilliant promises that the American Association of Nurserymen voted to hold its meeting of 1898 in Omaha.

J. W. Stevenson of North Bend, discussed small fruit. F. Coleman, Corning, Ia., described southern horticulture. J. Brown, of Youngers & Co., Geneva, described their system of fumigating stock. A resolution was introduced by Mr. Brown and adopted by the society, with a view to securing federal aid, and united action by all the states against the further spread of the San Jose scale.

A list of peaches revised to date was given by J. M. Russell of Wymore, the peach king of Nebraska. This list is selected from among sixty varieties tested by Russell & Son and was largely sought for by the amateur peach growers of both Nebraska and Western Iowa. They are named as follows in the order of their ripening: Alexander, Early Rivers, Hale's Early, Coolidge Favorite, Champion, Wager, Wright, Hill's Chili, Crosby, Bokara No. 3 and a few for trial of Heath Cling, Smock and Solway.

The old officers were re-elected as follows: G. A. Marshall, president; J. H. Hadkinson, first vice-president; W. J. Hesser, second vice-president; C. H. Barnard, secretary; Peter Youngers, treasurer. Three directors were elected as follows: Louis Henderson, Omaha; E. F. Stephens, Crete; J. P. Dunlap, Dwight.

ONTARIO.

The thirty-seventh annual meeting of the Ontario Fruit Growers' Association was held at Waterloo, Canada, on December 15th. W. M. Orr reported that twenty-nine orchards had been sprayed. Nearly 3,000 people had attended, and much interest was manifested. Whereas unsprayed orchards last year yielded only from 15 to 25 per cent. clean fruit, those sprayed had given from 70 to 90 per cent. The cost was only two cents per tree per application. Six applications were given.

L. Woolverton, secretary of the association, read the report of the results of the trial shipments of fruit to England. Seventeen car-loads had been forwarded, consisting of peaches, pears, plums, grapes, and tomatoes. There had been losses on the earlier shipments, owing to the high temperature of the cold storage warehouse, and lack of ventilation in packages. Later, smaller packages had been used, and a more even temperature secured, with more satisfactory results. Grapes had not done well.

It was reported that the San Jose scale had been found in fifteen orchards in the Dominion. C. C. James laid the draft of the provincial government's bill before the meeting, and invited discussion of its various clauses. In its present state, the bill provides for thorough inspection and destruction of infested trees, with partial compensation to owners. The question of importation of infested nursery stock was discussed; and a committee was appointed to wait on the minister of agriculture with reference to the final shape of the bill.

ILLINOIS.

At the forty-second annual meeting of the Illinois State Horticultural Society, at Springfield, December 28-30, a committee consisting of H. Augustine, Normal; J. W. Stanton, Richview, and H. M. Dunlap, Savoy, was appointed to co-operate with the state entomologist in the suppression of the San Jose scale in the state. The following resolutions were adopted:

Whereas, The 300,000 acres of apple orchards in Illinois are threatened with destruction by that dread scourge, the San Jose scale, which has now twenty-five distinct colonies in widely separated localities of this state; and,

scale, This insect is sure death to apple, pear, peach, plum, cherries, and shade trees, but if energetic measures are applied and at once, while this insect is still upon the young trees, it can be stamped out, and its further introduction upon diseased stock by unscrupulous dealers prohibited; and,

Whereas, It is known that in some states whole orchards and parks have been destroyed, and that one nursery firm in a neighboring state, whose stock is infected, is now mailing broadcast their catalogues offering fruit and ornamental trees at sacrifice prices to prospective planters; and

Whereas, There is no law in this state as there is in other states to protect the fruit interests of the state against unscrupulous parties, and no adequate authority for stamping out this insidious enemy and prevent the loss of hundreds of thousands of dollars invested in the commercial orchards of the state; therefore, be it

Resolved, That we, the members of the Illinois State Horticultural Society, in annual convention assembled, realizing that we stand upon the brink of an impending crisis in the destruction of the fruit interests of the state, and regretting the failure of the general assembly at its regular session to pass adequate legislation, do most earnestly petition his excellency, Governor Tanner, to amend his call for a special session so that the general assembly may be authorized to enact such legislation as shall adequately protect the farmers and fruit growers of Illinois against this deadly enemy.

Resolved, further, That a committee of this association be appointed to wait upon Governor Tanner and present to him these resolutions, and ask his favorable consideration thereof immediately, in view of the existing emergency.

J. V. Cotta, Amboy; L. R. Bryant, Princeton, C. H. Webster, Centralia; E. A. Reihl, Alton; L. F. Dittleman, Belleville, won all the prizes for fruit displayed. R. Morrill, Benton Harbor, Mich., read a paper on spraying. Archie M. Augustine, Normal, read a paper on "The Nurseryman in Horticulture."

The following officers were elected: President, H. M. Dunlap of Savoy; vice president, H. A. Aldrich of Neoga; secretary, L. R. Bryant, of Princeton, and treasurer, J. M. Stanton, of Richview.

THE NORTHWEST.

The fifth annual meeting of the Northwestern Fruit Growers Association was held in connection with the annual meeting of the Oregon State Horticultural Society, at Portland, Ore., January 12-14. President N. G. Blalock, of the Fruit Growers Association delivered his annual address in which he said: "There is no limit to the possibilities of our fruit production, when insect and fungoid trouble are handled with energy, guided by science. We can furnish the nations of the earth with fruit, as we do with bread and meat."

H. B. Miller read a paper on "Laws for the Protection of the Fruit Industry" in which he said: "We have horticultural laws in Oregon, and yet I doubt if there is a state in the Union where injurious diseases and pests are doing more damage, and at the same time being combatted less, than here. Of 100 apple orchards visited this fall only ten had been sprayed and all were infected with either scale, apple scab canker, moth, or other forms of disease and pests. The loss to the state this year by these enemies was not less than \$150,000. Throughout the Willamette valley the loss of the apple crop was not less than 75 per cent. In the face of this dreadful economic waste many persons are found who absolutely refuse to spray." An interesting feature of the Josephine county exhibit was the display of A. H. Carson, of Applegate river, seven miles from Grant's Pass, whose ranch produces such a novel combination of crops as golden nuggets and fruit. Mr. Carson has, on adjacent pieces of land, a rich

placer claim and a fine orchard. During the four winter months, when water is plentiful, he works the former, and has taken out many fine nuggets, one secured a little farther up in the same gulch being valued at \$500, and in the summer he produces the equivalent of the golden metal in apples and dried fruits of all descriptions.

William Crow, of Merlin, is the possessor of another such ranch, having a quartz mine located beside his peach orchard. About \$8,000 per year is taken out by two men.

A placard announced that there is not a codlin moth in Lincoln county. S. G. Irvin, of Newport, who was in charge of the exhibit, proudly stated that this season's crop of apples was 10,000 bushels, and that the growers would give \$1 apiece for every worm found in them. A clever theory is advanced to explain why the climate of that section is not salubrious for the codlin moth and his family connections. The county is located west of the coast range, and has constant moist breezes from the sea. The leaves of the trees have a slight salty taste, due to this cause, and the eggs of the pest, which are usually deposited on the leaf, do not seem to develop in such a briny location.

The following officers were elected: President, N. G. Blalock, Walla Walla; secretary, J. S. Bolster, Spokane; treasurer, W. S. Offner, Walla Walla; vice-president, for Oregon, E. L. Smith, Hood River; for Washington, Frank Wheeler, Yakima; for Idaho, A. E. Gibson, Caldwell; for British Columbia, T. A. Sharp.

It was decided to hold next year's meeting at Spokane.

WESTERN NEW YORK.

At the meeting of the Western New York Horticultural Society in Rochester, January 26-27, the following resolutions were adopted:

Resolved, That it is the sense of this body in convention assembled, that the threatened danger to the fruit-growing interests of this state by the San Jose scale, is so great as to demand immediate action upon the part of the commissioner of agriculture and legislature of this state, in passing and enforcing such laws as will prevent the further introduction of this pest, and effect the extermination of it wherever it has already a foothold. Further, be it

Resolved, That the president of this society name a committee of three as a committee on legislation, who shall interest themselves in the passage of such measures and whose expenses shall be paid by this society.

That said committee, upon the framing of such measures as may be regarded as effective in accomplishing the end sought, submit same to the president of this society and Professor W. H. Jordan, of the Geneva Experiment Station, for their approval.

Professor M. V. Slingerland of Ithaca, gave an illustrated lecture on "Bugs From a Bug Standpoint." It was a most interesting talk and presented in a unique manner. The professor had a very large bug, an artificial one as large as a big turtle. The bug was made to talk and said many strange things, among others that there were over 300,000 different kinds of him but that only 30,000 had gotten to this country yet. However, they are coming in at the rate of 7,000 new kinds each year.

"You fruit growers have got to fight bugs and you may as well find out all about them," said the speaker.

"Can we ever hope to exterminate the San Jose in the East or even in New York state? I answer most emphatically no. There are no facts to warrant the hope that the scale can be exterminated in a single orchard, except the trees be burned. But I believe that those fruit-growers who now successfully combat the canker-worm, the pear psylla and plum curculio, will be equally as successful in dealing with this new pest, but they must first make themselves acquainted with the insect itself and its works."

STATE LEGISLATION.

Nine States Have Scale Laws—Eleven Legislatures in Session—No Scale in Delaware, Iowa or Nebraska Nurseries—Prospects in Ohio, Indiana, Illinois and Wisconsin.

Notwithstanding the alarm raised in many quarters regarding the San Jose scale state, legislation on the subject has not progressed to a marked degree. Laws intended to govern the transportation of nursery stock have been passed by the legislatures of California, Georgia, Maryland, Michigan, North Carolina, Oregon, Virginia, Pennsylvania and Washington.

The Georgia law is not satisfactory, being entirely different from the draft prepared by a joint committee of the Georgia State Horticultural and Agricultural Societies.

President P. J. Berckmans of the Horticultural Society says: "This draft was made after carefully considering every act bearing upon this question which had been passed by the various states. Every objectionable feature was eliminated, the best points were considered, and when this draft was submitted to several of our leading entomologists, they agreed that this draft of a law was not only liberal in its provisions, but covered every necessary point to make it easily enforced without being dictatorial. Much to our surprise this draft was almost entirely ignored and another substituted, which in the opinion of our leading fruit growers is of no value whatever."

The legislatures of Delaware, Iowa, Kentucky, Maryland, Massachusetts, Mississippi, New Jersey, New York, Ohio, Rhode Island and South Carolina are in session.

State Entomologist J. B. Smith, of New Jersey prefers to trust to the vigilance of purchasers rather than the efficiency of laws on this subject.

Professor Herbert Osborne, state entomologist of Iowa, says there is no San Jose scale in the nurseries of Iowa, and, so far as he knows, none in the orchards of the state.

An attempt was made by the Illinois Horticultural Society to have Governor Tanner include consideration of San Jose scale in his call for a special session of the legislature, but Henry Augustine, Normal, Ill., chairman of the committee having the matter in charge writes that the session had been called before the matter was presented to the governor. Mr. Augustine says: "No special legislation will be had during this session but the scale has made so little inroads upon our state that we feel we can control it and doubtless there will be special legislation next winter. In the meanwhile our state entomologist with his assistants is at work vigorously destroying the small colonies already discovered. The people are thoroughly aroused so that there will be general co-operation in the whole work."

The report of Wesley Webb, deputy inspector, showing that so far as is known, not a nursery in Delaware has the scale, is presented in another column. The report of the inspector called for by the legislature has been presented.

C. M. Hobbs, of Albertson & Hobbs, Bridgeport, Ind., president of the Indiana State Horticultural Society, is chairman of a committee of that society appointed to prepare a draft of a San Jose scale bill for presentation to the Indiana legislature which will meet January 9, 1899.

Hon. N. H. Albaugh, Tadmor, Ohio, is chairman of a committee appointed by the Ohio State Horticultural Society to

recommend needed legislation on San Jose scale, yellows, black knot and other dangerous insects or diseases. The committee has prepared a bill providing for licenses.

Professor W. D. Hunter, of the Nebraska Agricultural College, says that no traces of the scale have been found within the state. He advises that "nursery stock from the infected states, particularly New Jersey, Maryland and New York, should be avoided or subject to a rigid examination."

At Madison, Wis., February 2, Professor E. S. Goff, entomologist, will, before the Wisconsin Horticultural Society, discuss the question "Are we doing our duty as a society to prevent the ravages of the San Jose scale in our state?"

Regarding Pennsylvania, Dr. George G. Groff, of Bucknell University, Lewisburg, Pa., writes to the NATIONAL NURSERYMAN: "Our law is as follows: A person suspecting the presence of the scale reports to the township road supervisors. They select three men as a commission. These inspect the trees and pronounce them infected or otherwise. If infected, they can destroy them. All expense is borne by the township. This law was passed two years ago, and originated, I believe, in our State Department of Agriculture. We know that the scale exists in 22 of the 67 counties. The state is doing nothing to check its spread."

It is expected that a bill will be presented to the New York legislature at the present session.

Obituary.

John C. Durkin of Geneva, N. Y., died January 5th, aged 38 years. For eight years he had charge of the Rupert Nurseries in Penn Yan, N. Y.

Henry S. Rupp, Shiremanstown, Pa., died January 14th, aged 71 years. He had been in the nursery business since 1865. The firm of Henry S. Rupp & Sons has been succeeded by John F. Rupp. Henry S. Rupp was one of the pioneer horticulturists of his state, being an extensive grower of apples, pears, grapes and berries. He was a member of the American Pomological Society and of the Pennsylvania State Horticultural Association.

G. E. Meissner, of the well-known firm of Bush & Son & Meissner, Bushberg, Mo., died January 2d. He was prominent in nursery and horticultural matters in this country and as the introducer of American resistant stock against phylloxera in France, Spain and Italy, he was highly esteemed in European grape countries. After battling bravely for almost two years with a painful, lingering illness, he died peacefully at his home in Bushberg in the 55th year of his age. He will be sadly missed by his devoted family and many warm, true friends. Mr. Meissner had been an officer and active worker in the American Association of Nurserymen.

PRAISE FROM A HIGH SOURCE.

EASTERN SHORE NURSERIES, J. W. KERR, PROPRIETOR, DENTON, MD., January 10, 1898.—"Your reminder of the expiration of my subscription received and you have my thanks for this kind attention. Enclosed find one dollar which please place to my credit. I congratulate you upon the clean style and healthy tone of the NATIONAL NURSERYMAN. I hope it will never be afflicted with the eumulative putrescence that characterizes so many of our horticultural publications. Wishing you a year 'choek full' of genuine prosperity, I am, gentlemen, very respectfully yours."

Among Growers and Dealers.

Slaymaker & Son, Dover, Del., have berry plants of all kinds.

G. W. Henry, Hatzie, B. C., has retired from the nursery business.

C. E. Whitten, Bridgman, Mich., makes a specialty of strawberry plants.

C. L. Whitney, Warren, Ohio, makes a specialty of small evergreens.

C. N. Flansburgh, Leslie, Mich., has 100 varieties of choice strawberries.

High grade trees are sold by Hoopes, Brother & Thomas, West Chester, Pa.

Orange quince stock can be obtained from Otwell's Nursery, Carlinville, Ill.

All kinds of evergreens are handled by the Evergreen Nursery Co., Evergreen, Wis.

A carload of peach trees is ready for the first comers at Charles Wright's, Seaford, Del.

President Wilder currant and Dikeman cherry are offered by S. D. Willard, Geneva, N. Y.

Nut and fruit trees of all desirable varieties can be had at Parry's Pomona Nurseries, Parry, N. J.

Apple, standard pear, cherry, peach, etc., fine stock, are offered by I. E. Ilgenfritz' Sons, Monroe, Mich.

The Munger raspberry and other small fruits in great variety are offered by W. N. Scarff, New Carlisle, Ohio.

J. E. Curtiss, Barr Center, N. Y., manufactures green elm cleats and corners, tar-pointed rose tree stakes, etc.

C. F. McNair & Co., Dansville, N. Y., have cut prices on standard dwarf pear; also on apple, plum and cherry.

A report of the annual meeting of the Western New York Horticultural Society will appear in a forthcoming issue.

T. J. Dwyer of the Orange County Nurseries, Cornwall, N. Y., has taken into partnership his oldest son, M. J. Dwyer.

William C. Barry and family of Ellwanger & Barry, Rochester, N. Y., have been passing the winter at Lakewood, N. J.

An heir arrived at the home of Thomas B. Meehan, Germantown, Pa., last month. All Tom could say was: "It's a boy!"

Charles S. Pratt, Reading, Mass., regards the Clyde, Glen Mary and Sample as three varieties of strawberries that rank first.

Thomas W. Bowman & Son, Rochester, N. Y., make prices low on a large and fine assortment of fruit and ornamental stock.

Peach trees and choice ornamental stock, including chestnut, maple, willow, Magnolia, are offered by George Achelis, West Chester, Pa.

Special prices are offered by H. M. Simpson & Sons, Vincennes, Ind., on leading commercial varieties of apple, peach, cherry and pear trees.

Lewis Chase and wife, Rochester, N. Y., and Nelson Bogue, Batavia, N. Y., started on January 30th for a two months visit to the Bahama Islands.

W. & T. Smith Co., Geneva, N. Y., offer bargains in high grade stock, both fruit and ornamental. Dealers' complete lists receive special attention.

Everbearing peach is offered by G. H. Miller & Son, Rome, Ga., who regard it as a taking specialty for nurserymen who run agents for the fall of 1898.

W. R. Harris and T. H. Perry, Tecumseh, Neb., have gone out of the nursery business. Mr. Harris has removed to Florida where he will grow fruit.

Josiah A. Roberts, Malvern, Chester county, Pa., offers peach trees, California privet, Norway Spruce, American Arbor vitae, Osage orange, etc., fresh dug as ordered.

The following stock must be sold to clear land at W. M. Peters Sons, Wesley Md.: Peaches, Japan plums, grape vines, asparagus roots and 3,000,000 strawberry plants.

Apple, pear, standard and dwarf cherries, plums, apricots, peaches, Houghton and Downing gooseberries, grapes and blackberries are offered by A. Willis, Ottawa, Kan.

The Griffing Brothers Co., Macclenny, Fla., as usual are making arrangements to distribute a large amount of nursery stock from Philadelphia during March and April.

The Storrs & Harrison Co., Painesville, O., have customers in every state and territory in the Union. They have had 43 years' experience and grow fruit and ornamental trees, shrubs, roses and plants by the carload.

The Missouri State University at Columbia offers a short winter course in horticulture divided into orcharding and small fruit culture, floriculture and vegetable gardening. Special lectures are given by leading horticulturists.

Following are the officers of the Ricker National Nursery Co., elected January 4th: President, E. G. Minnick; vice-president, John C. Wiltsie; secretary and treasurer, A. R. Straw. The officers and sons of Messrs. Minnick and Wiltsie are the directors.

C. E. Howland, formerly manager of the nursery department of L. L. May & Co., St. Louis, has removed to Los Angeles, Cal., and engaged in business there under the firm name of The Howland Nursery Co., handling an ornamental line exclusively.

Professor David Trine, Springport, Mich., formerly of the experiment station at Orono, Me., later of Cornell University, Ithaca, N. Y., and still later of Oregon, has been appointed inspector of nurseries and orchards in Michigan, in place of U. P. Hedrick, resigned.

Henry Schroeder, Sigourney, Iowa, notes less mailing of wholesale prices on postal cards than formerly. He thinks nurserymen should agree upon a limit of time for the replacing of stock to customers. He wants more Wagner apple trees grown. Henry succeeds with the Kieffer pear.

N. A. Whitney, Franklin Grove, Ill., treasurer of the American Association of Nurserymen since 1890, succeeding his father, the late A. R. Whitney, has resigned that position. President Irving Rouse has authorized Secretary George C. Seager, Rochester, N. Y., to act as treasurer until the next annual convention, in June.

The West Michigan Nursery Co. on January 3d elected the following board of directors: J. W. Bedford, Juan Hess, O. E. Fifield, W. B. Mosher, A. J. Dean, Frank Kelley, H. L. Bird, and C. O. Shriver. The board elected the following officers: President, J. W. Bedford, vice-president, Frank Kelley; secretary, O. E. Fifield; treasurer, Harry L. Bird; general manager, C. W. Shriver; superintendent of the farm, W. B. Mosher.

NEW CANADIAN LAW.

**Act Just Passed by Ontario Assembly to Govern San Jose Scale
—Infested Nursery Stock May Be Destroyed—Owner May
Obtain One-Quarter Value of Stock so Destroyed.**

We are indebted to Stone & Wellington, Toronto, Ontario, for the following copy of the law just enacted by the Ontario assembly for the regulation of the San José scale:

AN ACT

To prevent the spread of San José scale.

Her majesty, by and with the advice and consent of the legislative assembly of the Province of Ontario, enacts as follows:

1. This act may be cited as the San José scale act.
2. In this act the word "minister" shall mean the minister of agriculture for the Province of Ontario.

The word "plant" shall mean any tree, vine, shrub or plant, or any part of a tree, vine, shrub or plant, or the fruit of any tree, vine, shrub or plant.

The word "scale" shall mean the San José scale insect in any of its stages of development.

3. No person shall import or bring, or cause to be imported or brought into the Province of Ontario, for any purpose whatsoever, any plant infested with scale.

4. No person shall keep, or have, or offer for exchange or sale, any plant infested with scale.

5. For the purpose of scientific investigation the minister may from time to time, by writing given under his hand, except such persons as he may deem proper from the operation of the two preceding sections, and while acting under such permission, such persons shall not be subject to the penalties imposed by this act.

6. Any person having reason to suspect any plant in his possession or in his charge, or keeping, is infested with the scale shall forthwith communicate with the minister in regard to the same, and shall furnish the minister with all such information in regard to the source or origin of the said infestation and the extent and nature of the same as he may be able to give.

7. Whenever the scale exists, or is supposed to exist on any plant, the minister may direct a competent person to make an examination and inspection and may order that any plant so infested, or such part as he may deem advisable, shall be immediately destroyed by burning either by the person appointed to make the inspection, or by the person owning or having possession of the said plant or some other person so directed in writing, and the person so directed shall make a full report to the minister in writing as to the nature and extent of the work so performed, together with a fair estimate of the value of the plant destroyed.

8. For the purpose of enforcing this act, it shall be the duty of every inspector appointed under the yellows and black knot act to make careful examination and inspection for the occurrence of the scale within the municipality for which he is appointed, and to report forthwith to the minister every case of infestation, and neglect to make such report shall render the inspector liable to the penalties imposed under section 11 of this act.

9. Any person appointed by the minister under this act to inspect, or to destroy any plant, for the purpose of enforcing the provisions of the act, shall, upon producing his authority in writing, have free access to any nursery, orchard, store, storeroom, or other place where it is known, or suspected, that any plant is kept.

10. Upon the recommendation of the minister there may be paid out

of the consolidated revenue fund of the province to the owner of any plant so destroyed a sum not exceeding one-fourth of the value thereof (not including fruit) as reported upon by such officer or other competent person, appointed as aforesaid, but nothing in this section shall apply to any plant imported into the province within a period of one year prior to the examination by the officer aforesaid.

11. Any person neglecting to carry out the provisions of this act, or any person offering any hindrance to the carrying out of this act shall, upon summary conviction, be liable to a fine of not less than \$20 nor more than \$100 together with costs, and in default of payment thereof shall be subject to imprisonment in the common gaol for a period of not less than ten days nor more than thirty days.

12. The lieutenant-governor in council may by order direct that other scale insects be included in the provisions of this act, and thereafter during the continuance of such order-in-council the word "scale," in this act shall include all such other scale insects. Public notice of such order-in-council shall be given by publication in two successive issues of the *Ontario Gazette*.

Closely following the passage of the bill, supplementary estimates were brought down in which were several thousand dollars appropriated to pay the inspectors, so that the act will be carried rigidly into effect.

JAMES H. MYER.



JAMES H. MYER.

James H. Myer was born at Saugerties, Ulster county, N. Y., September 16, 1859. Five years afterward he removed to Delaware, where his father, David S. Myer, began the business of nurseryman and fruit grower. James H. Myer has grown up in the business. He was admitted to the firm of Myer & Son in 1885, becoming at that time general manager. In October, 1888 David S. Myer died. The business is now conducted by James H. Myer, under the firm name of Myer & Son.

The Bridgeville Nurseries at Bridgeville, Del., consist of two hundred acres in bearing fruits, comprising the new and old standard varieties. Specialties are peach trees, strawberry plants, Eldorado and Maxwell's Early blackberries; Loudon, Columbian, Logan and Miller Red raspberries.

J. M. Samuels, Clinton, Ky., offers a general line of nursery stock.

All the officers, president, vice-president, secretary and treasurer, of Iowa Horticultural Society, are nurserymen.

In a copy of the Rochester, N. Y., *Telegraph* of October 28, 1823, recently presented to the Rochester Historical Society, is an advertisement of the first nurseryman in this country, William Prince, Flushing, L. I., in which he offers shrubs and plants and concludes as follows: "The *Livingston Journal* and *Spirit of Times* (Batavia), will please insert this three weeks and send their bills to Smith & Beebe, Rochester."

NICHOLS & LORTON, DAVENPORT, IA.—"Enclosed please find \$1 for NATIONAL NURSERYMAN for 1898. Valuable paper. Best published."

The National Nurseryman.

C. L. YATES, Proprietor.

RALPH T. OLCOTT, Editor.

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OFFICIAL JOURNAL OF THE AMERICAN ASSOCIATION OF NURSERYMEN.

SUBSCRIPTION RATES.

One year, in advance,	-	-	-	-	-	\$1.00
Six Months,	-	-	-	-	-	.75
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Six Months,	"	"	-	-	-	1.00

Advertising rates will be sent upon application. Advertisements should reach this office by the 20th of the month previous to the date of issue.

Payment in advance required for foreign advertisements.

 Drafts on New York or postal orders, instead of checks, are requested.

Correspondence from all points and articles of interest to nurserymen and horticulturists are cordially solicited.

AMERICAN ASSOCIATION OF NURSERYMEN.

President, Irving Rouse, Rochester, N. Y.; vice-president, E. Albertson, Bridgeport, Ind.; secretary-treasurer, George C. Seager, Rochester, N. Y.

Executive Committee—C. L. Watrous, Des Moines, Ia.; R. C. Berckmans, Augusta, Ga.; F. H. Stannard, Ottawa, Kan.

Committee on Transportation—N. H. Albaugh, Tadmor, O.; Irving Rouse, Rochester, N. Y.; A. L. Brooke, North Topeka, Kan.; Silas Wilson, Atlantic, Ia.; N. W. Hale, Knoxville, Tenn.

Committee on Tariff—W. C. Barry, Rochester, N. Y.; J. J. Harrison, Painesville, O.

Committee on Legislation—C. L. Watrous, Des Moines, Ia.; N. H. Albaugh, Tadmor, O.; Silas Wilson, Atlantic, Ia.; Irving Rouse, Rochester, N. Y.

Annual convention for 1898—At Omaha, Neb., June 8, 9.

Entered in the Post Office at Rochester, as second-class matter.

ROCHESTER, N. Y., FEBRUARY, 1898.

FEDERAL BILL INTRODUCED.

Federal legislation in which nurserymen take a deep interest has been started at Washington under circumstances which augur for its success. There has been full discussion of the need of a law to regulate the shipment of nursery stock on account of the San Jose scale. And now a representative joint committee of nurserymen, entomologists and horticulturists has met at Washington, drafted a bill and caused its presentation to Congress.

The bill, thus prepared, was presented by the gentlemen named, to the committee on agriculture of the House of Representatives, of which Congressman Wadsworth, of New York, is chairman. Secretary of Agriculture James Wilson, appeared before that committee with the nurserymen, entomologists and horticulturists, and added his argument in favor of the bill. The House committee promptly endorsed the bill, and it was presented in Congress by Congressman Charles A. Barlow, of San Luis Obispo, Cal.

To each of the gentlemen composing that joint committee

the thanks of the large number in the branches represented by them are due in full measure for their earnest and successful endeavors to harmonize all interests. President Watrous of the American Pomological Society, President Rouse of the American Association of Nurserymen and Professor Alwood who has been the most active of the entomologists in the movement for such a measure, have worked long and arduously to find the common ground upon which all might stand. It now remains for the rank and file among nurserymen, horticulturists and entomologists to second the efforts of these gentlemen by every means in their power, to the end that the bill now before Congress may become a law. It is urged that the nurseryman in all parts of the country write to their representatives in Congress endorsing the bill and emphasizing the importance of having a uniform law in this matter.

The appropriation bill in the House has been passed but it is expected that Senator Allison, chairman of the Senate committee on appropriations will secure the insertion of the needed amount to make the law effective in the Senate's amended appropriation bill.

Much credit is due Congressman Henry C. Brewster, of New York, for his valuable aid to the committee and others, for it was largely on account of his efforts that the bill was introduced so promptly.

OPINIONS ON CERTIFICATES.

In a symposium on the San Jose scale, the *Rural New Yorker* gives the opinions of several nurserymen and entomologists. Dr. John B. Smith, of New Jersey, says he advises fruit growers in that state to insist upon a guaranty from the seller of nursery stock and he has stopped the issuing of certificates. V. H. Lowe, entomologist of the Geneva, N. Y., experiment station, places little value on a single inspection. Professor Frank A. Waugh, of the Vermont experiment station, says an honest nurseryman gives the best guaranty. Professor L. H. Bailey, Ithaca, N. Y., says an entomologist's certificate is of some value, but that an examination sufficient to give a clean bill of health to a nursery would cost more than the stock is worth.

S. D. Willard, Geneva, N. Y., says he cannot see how the ground can be covered absolutely without legislative action of an imperious character, requiring the employment of many men at great expense. He fears more danger from neglected orchards than from dissemination of the scale on trees by nurserymen, because the latter are on a sharp lookout for everything injurious to their interests. T. T. Lyon, South Haven, Mich., believes certificate establishments are more trustworthy than others. J. H. Hale, South Glastonbury, Conn., regards the average certificate as of little real value.

Editorially the *Rural New Yorker* remarks: "In the end we must trust to the honor and intelligence of the nurserymen for our best protection."

UNIFORMITY OF NAMES.

The systematic effort of the American Pomological Society to establish a standard nomenclature of fruit should receive the earnest support of the nurserymen. It is a matter in which all growers of fruit and fruit trees should be deeply interested.

The American Pomological Society has secured the publica-

tion by the U. S. Department of Agriculture of a catalogue of fruits recommended for cultivation in the various sections of the United States by the society. The list has been revised by a committee, of which T. T. Lyon, South Haven, Mich., was chairman, and of which the well-known nurserymen L. A. Berckmans and C. L. Watrous were members. Professor L. H. Bailey and Henry L. Lyman were also on the committee, and valuable assistance was given by W. A. Taylor, assistant pomologist of the Federal Division of Pomology.

The United States pomologist, G. B. Brackett, has sent a copy of this catalogue of fruits to nurserymen with an earnest request that it be used as a guide in preparing nursery catalogues. Some nurserymen have already done this, and without doubt the suggestions of the American Pomological Society will be generally adopted. Such a result would be of great benefit to the nurserymen, eliminating much of the confusion in the use of misnomers and synonyms. Regarding the matter, Mr. Brackett says:

"A nurseryman, through his catalogue, is an educator of his patrons to a large extent. He is considered good authority on the names of the fruits which he offers for sale. Hence the importance of having a universal and correct standard of nomenclature. I am aware that in many instances it will be difficult to break away from old established customs and habits in the use of names of fruit, but there is no way that this reform can be accomplished more readily than by a united effort on the part of nurserymen and fruit growers in this direction. It is, therefore, earnestly requested that you give this matter your careful consideration."

It would seem proper that the American Association of Nurserymen at its convention next June should take some action on the subject.

In another column are presented some arguments in behalf of the American Pomological Society, which will appeal to all who seek the advancement of horticultural interests.

OMAHA EXHIBITION.

Editor NATIONAL NURSERYMAN:

Having recently met with the leading fruit men of Nebraska, Missouri and Iowa, and having visited the exhibition grounds, I am fully convinced that the horticultural exhibition at Omaha will be the finest state show of fruits ever made. It is hoped and expected that every state in the Union will be represented. The preparations by these states nearby is on a large scale and they will doubtless lead in the apple display, but for other fruits the states East and West are expected to win the laurels.

It is hoped that the railroads will give a regular half rate to the Trans-Mississippi Exposition and that a generous display and full patronage will be the result. The buildings are being rapidly pushed to completion and all will be in readiness early in the season.

GEORGE J. KELLOGG.

Janesville, Wis., Jan. 15.

General De Duc, formerly chief distributor of seeds and agricultural commissioner, declared that for all the thousands of dollars worth of seeds given away yearly by the government at the expense of the taxpayers of the country, not a dozen reports have ever been made that were available by the department for data.

REGARDING CERTIFICATES.

*Professor John B. Smith, New Jersey's Noted Entomologist,
Says No Man Can Be Sure No Scale Exists in a Large
Block of Trees—A Guaranty the Only Remedy.*

At the recent Moorestown, N. J., institute, Professor John B. Smith, state entomologist, spoke of nurserymen's certificates as follows:

"There seems to be no reasonable doubt that the scale occurs in almost all the Atlantic states and in most of those in the Mississippi valley. Nursery trade is going on constantly, and the attempt has been and is being made to control this by state legislation. As it has an inter-state bearing, congress has been appealed to, and general inspection laws for nurseries and a large appropriation have been asked for.

"The state laws already passed require certificates that the stock or the nursery on which it was grown had been examined and found free from San José scale, yellows, rosette and other injurious insects and plant diseases. It is an impossible certificate to give. No man in the world can go into a block of 250,000 peach trees and say there is no yellows there. Nor can he say even that there is no San José scale there. All that he can say and all that he does say, in most instances, is that he has examined the nursery and found no indications of such things—which is quite a different matter.

"There are some nurseries in this state on which I have been for three years in succession, whose surroundings I know fully and where I feel as certain as I do of almost anything that no pernicious scale exists. Yet even there I could not say it does not exist, from positive knowledge.

"There is danger from anywhere, and whether there is a certificate or not. How do you know that the stock you get with a certificate nailed on the box has really been inspected? Nurserymen are just as honest as other people, but not a bit more so. I know that stock has been shipped out of New Jersey with my certificate nailed on the box that was never grown in this state.

"I know that stock bearing certificates and covered with scale has actually been received in New Jersey this season. I know that a nurseryman of another state, who has a certificate, has applied to me for information as to how to treat the scale. I know also that trees now in orchards and badly infested came from nurseries where now no trace of scale seems to exist. There is only one way of getting good stock and that is to insist on a guarantee from the seller and to verify at once on receipt of the stock.

"It will be said that the scale is difficult to find by one who is inexperienced, and that is true; but every fruit grower ought to be able to tell when his stock is clean, smooth and free from abnormal spots or blotches. If anything questionable attracts his attention he has always the right to send a cutting, or a sliver of bark, or a suspected bud, or anything of that kind to the experiment station, and he can be assured of a reply by return mail in nine cases out of ten.

"At the station the inspection system, under present circumstances, is considered as so unsatisfactory that the giving of certificates has been discontinued by order of the director. None have been given since October 10, and none will be given in the future, except under some state law requiring them, if such be passed during the present winter."

DELAWARE INSPECTION.

Shows That Not a Nursery in The State Has the Scale--Results of Annual Inspections--A Few Infested Trees In Orchards Have Been Destroyed--Report to the Legislature.

Editor NATIONAL NURSERYMAN :

The inspection for San Jose scale in Delaware, in 1897, included not only the nurseries, but all the orchards wherever it was known that stock from any infested nursery had been planted. It is, therefore, believed that very few if any infestations have escaped. In nearly every case the infested trees were of small size and very few in number. In most instances all the infested trees were either destroyed or treated so as to furnish a hope that the pest will be exterminated.

It is the general belief among fruit growers that eradication, so far as Delaware is concerned, is the only policy that should be considered for a moment. To root up and destroy every infested tree, or, indeed, every infested orchard in the state, would be but a trifle compared with the cost of a single annual treatment, should this pest become in any degree generally distributed over the state. There are not 2,000 infested trees in the state, and never have been.

There is no reason to believe there has ever been a tree, infested with scale, shipped out of this state. On the other hand nearly every nursery in the state has been inspected each year for the last two years, and some of them for a year or two longer, and no scale has been reported. Some of our nurserymen have in years past purchased trees from infested nurseries in other states, but they have been fortunate enough not to have their own nurseries infested thereby, and it is a very great fortune, too. It is rather dangerous to say that scale does not exist anywhere; all that we can say is that it cannot be found; but I can say freely that I do not believe that there is a single case of infestation of the San Jose scale on any farm or other premises of any nurseryman in Delaware. It is the policy and the purpose of the state to keep such a watch over the matter, and to help the nurserymen, fruitgrowers and farmers to keep such a watch that there shall never be such an infestation. In other words the state, through its board of agriculture, proposes to exterminate this pest, so far as Delaware is concerned.

WESLEY WEBB,
Deputy Inspector.

Dover, Del., Jan. 19, 1898.

THE ROSSNEY PEAR.

This pear grown and for sale only by the Pioneer Nursery Co., Salt Lake City, Utah, is attracting much attention. This firm was established in 1850. It is well known throughout the country and its endorsement of a variety means much. It is introducing the Rossney pear, every tree bearing a copyrighted and trade-marked seal. The eastern agents are the Phoenix Nursery Co., Bloomington, Ill.

Following is the copyrighted description of the Rossney:

ROSSNEY PEAR.—A new and excellent pear, raised from seed at Salt Lake City, Utah. In size, medium to large; very fine grain, flesh melting and very juicy; very sweet. Ripens two weeks after Bartlett. Is an excellent keeper and shipper. The tree is a much stronger grower than Keiffer. Luther Burbank says, under date of October 5th, 1895: "The sam-

ples of Rossney pear arrived in due season. The large size, handsome form and creamy yellow skin with crimson blush gives the fruit a tempting appearance; and the rich, tender and creamy flesh of just the right texture, with no hard spots and an unusually small core, with its superior flavor makes it about the best pear so far seen. If the tree is vigorous, healthy and productive, would prefer it to any other, even the standard Bartlett and Seckel."

GERMANTOWN, PHILADELPHIA, PA., Oct. 3, 1895.

Pioneer Nurseries Co.:

GENTLEMEN—Your pears arrived in good condition. They are very attractive in both size and coloring, and the quality very good. They are very juicy and sugary and would please most palates. The relative merits, as compared with other varieties fruiting in the Salt Lake region cannot, of course, be judged here. It would be well, if you could, to compare it with Josephine de Malines, which, however, is not near ripe here at this date.

Very truly yours,
THOMAS MEEHAN & SONS.

DANVILLE, N. Y., Oct. 12, 1895.

Pioneer Nurseries Co.:

GENTLEMEN—The sample of your seedling pear reached us on the 9th in prime order. It is a very handsome fruit and of most excellent quality. Its large size, fine grain and flavor and superior shipping qualities ought to make a combination that would prove a winner. If the tree is hardy and a good bearer, it possesses about all the qualities necessary in a pear.

Yours very truly,
GEORGE A. SWEET.

WOODBURN, OREGON, Oct. 12, 1893.

Pioneer Nurseries Co.:

GENTLEMEN—Yours of some time ago received; also the pears which came through in good condition. We think you have a very nice thing in this, and it seems to be a very good keeper (we having eaten the last one yesterday), especially so as it has been here in the office where it has been warm all the time. As it has a very rich color and stands shipping well, we think it should be a valuable addition to the pear list.

Yours truly,
J. H. SETTLEMEIR & SONS.

PAINESVILLE, OHIO, Oct. 8, 1895.

Pioneer Nurseries Co.:

GENTLEMEN—Samples of pears were duly received. Two of them were just right, the other was too far gone to test. It certainly is a handsome pear and of very fine quality, and if it is as good a bearer and grower as you state, it should certainly be a very valuable variety.

Yours truly, STORRS & HARRISON CO.

LITTLE SILVER, N. J., Sept. 6, 1897.

Pioneer Nurseries Co.:

GENTLEMEN—The samples of Rossney pear came to hand to-day, thoroughly ripe and in good condition. Without exception they are the most beautiful pears I have ever looked upon. The form and size are good and the quality excellent. If the tree proves a good grower and productive generally, you surely have in it a fruit of untold value. Thanking you for your kindness in sending me samples of this most promising pear, I am,

Yours truly,
J. T. LOVETT.

Prunus Maximowiczii, the pale yellow-flowered Japanese plum, has been raised in the Arnold Arboretum from seeds brought home by Professor Sargent from Northern Japan, and, although it has not flowered yet in the United States, it gives every hope of success here by its rapid healthy growth and perfect hardiness. At the end of October the plants were conspicuous from the scarlet coloring of the leaves, which were even more brilliant than those of Prunus Pseudo-cerasus, its associate in the forests of Yezo. Of the deciduous-leaved trees entirely new to cultivation this cherry is one of the best.

AMERICAN POMOLOGICAL.

A Boundless Field For Activity—Opportunities and Possibilities Worthy of the Best Thought and Labor of Nurserymen and Fruit Growers—A Grand Meeting in 1898 Favored.

The recent meeting of the American Pomological Society at Columbus, O., was not as successful as had been anticipated. This fact led L. B. Pierce to suggest in a series of articles that existing conditions no longer give place to such an organization.

In a letter to the *Country Gentleman*, H. Hendricks, referring to the late President Wilder, founder of the society, says :

For 34 years president of the association, and its benefactor to the extent of \$5,000 when he died, I am inclined to agree with you in crediting Col. Wilder with a share in the development of this honored society equal to that of all of his fellow members put together. His loss seems to have been irreparable, notwithstanding the prophetic words of Patrick Barry at the Boston session in 1887, when he said: "No matter who stands or falls, the American Pomological Society must be maintained in full vigor and usefulness."

In saying this, far be it from me to disparage the efficient and earnest services of my good friend, Prosper J. Berckmans, who succeeded Col. Wilder. For him I have nothing but praise in his retirement, and regret that he found such a step necessary. But what have we seen of late years, ever since the Washington meeting, let us say? There have been so-called sessions in Chicago, California, and lately in Columbus, Ohio. The sessions previously held in Philadelphia, Grand Rapids, Boston, Ocala, Fla., and Washington were, in my judgment, successful and profitable meetings, as the reports show. Concerning the Florida meeting Mr. Pierce does not speak, and I do not now remember whether he was present or not. But it certainly was one of the most interesting and delightful sessions of the society I ever attended. We were practically the guests of the state, and free to travel to every corner of it without charge. The beautiful orange groves and pineapple fields were thrown open to us everywhere, and we reveled in the luscious tropical fruits to our hearts' content.

It would seem like a national calamity to let the American Pomological Society go down after all the labors of its founders and its many achievements for the welfare and promotion of the great fruit interests and the fruit growers of America. Has it not commanded the respect of the world and been accorded first place as the original pomological society of the world? Its fruit catalogue and nomenclature, have they not been recognized as standards the whole world over? With the establishment of this society a new era dawned on the science of fruit culture on this continent. In one of his annual addresses Col. Wilder said: "To encourage the progress of fruit culture in our land by a cordial spirit of intercourse, to elicit and disseminate correct information in regard to the fruits of our vast territory, and to direct, control and advance this most important branch of terraculture, are the objects in view, and thus to establish a pomology for America which shall endure long after its founders shall have passed from the earth. Long may it live to carry on and perfect its glorious mission! Protect, preserve and perpetuate it, and your names shall be enrolled as benefactors of our land and of mankind."

Who will say that this noble mission has been fully accomplished, or that existing conditions no longer give place to such an organization? If mistakes have been made in the management, as there have been, why not face them squarely and go ahead in the right way? Some of the meetings have been injudiciously located, notably this last one. Other mistakes in the conduct of its affairs have doubtless been made. But I am not writing in a censorious spirit. It is easier to point out errors than suggest practical remedies.

Mr. Pierce speaks of "untrodden lines of usefulness" for the society, and opens wider the door of horticulture in a tempting way. But I seriously question the wisdom of thus enlarging the field. If the subject of pomology was broad enough upon which to build such a national society fifty years ago, when the fruit-growing interest was in its infancy, is it not vastly more worthy of the undivided interest of that society now, when that great industry has increased in value and importance a thousand fold? Better be content to labor in the realm of Pomona and leave the other parts of the garden and field to their appropriate organizations, of which we have enough. If this society has accomplished anything in the past, it is simply because of its devotion to this one subject. To me the field seems boundless in itself, with opportunities and possibilities worthy of the best thought and labor of our most eminent pomologists and most intelligent, practical and successful fruit-growers in America.

Now we are asked by the new management to renew our membership and assist in promoting the interests of the society. The circular letter just received from the new secretary, William A. Taylor, of the Department of Pomology at Washington, states that the membership fee has been reduced from \$4 to \$2, and that the volume of proceedings is ready for the printer, awaiting only for the full list of officers and members for 1897-'98. Whether such reduction is a wise measure remains to be seen. An increased membership ought to be desirable, aside from any financial aspect of the case. The desire for annual instead of the usual biennial meetings, which was expressed at the Columbus session, is another proposition which may be open to question. While it does not strike me with favor as yet, the motion to hold a meeting in 1898 at some suitable and accessible point, as stated in the circular, seems to commend itself, if a grand, big meeting can be had. Why not at Boston or somewhere in the East this time? The management asks for a thousand biennial members "to accomplish the work which is in sight." That does not look as though the mission of the society has come to an end, surely.

THE WEATHER PLANT.

Many strange "novelties" are laid at the door of Americans, but it has remained for an Austrian, Mr. Nowack, to propose the raising of a fund of \$50,000 for the establishment of an observatory-conservatory for the proper exploitation of the "weather plant," *Abrus precatorius*, wild licorice. It has long been claimed that this tropical plant foretells the weather. Mr. Nowack says by it he can predict cyclones in America, earthquakes in Japan and volcanic eruptions in Sicily. What an opportunity for catalogue expatiation!

Subscribe for the NATIONAL NURSERYMAN, the official journal of the American Association.

FOREIGN TREE DEALER.

Minnesota Man's Observations on the Activity of the Nursery Agent—Believes His Enterprise Should be Imitated Generally—A Plea for the Local Nurseryman.

At the recent meeting of the Minnesota Horticultural Society, C. L. Smith of Minneapolis read the following paper :

The reports of the Minnesota Horticultural society make frequent references to the foreign tree dealer, but I think you will all agree with me that the reference is always far from complimentary or commendatory. In fact I think it may be said without exaggeration that at every meeting of the society almost every member has some grievance to record or some abuse to report against the foreign tree dealer.

During all the years since this society was organized the foreign tree dealer has been kicked and cuffed, denounced and derided, his devices have been exposed, his stock black-listed, his name made a by-word. Laws have been enacted against him, the power of the press invoked to suppress him ; but despite all this he has lived and prospered, increased in numbers, multiplied in devices, and continued to harvest the dollars, from the farms, the villages and cities of the state. When it comes to honors at our annual meetings or at the state fair, our own painstaking, persevering, conscientious, intelligent and philanthropic horticulturists carry them off easily and worthily. When it comes to dollars, a band of well organized foreign tree dealers with books of pictures, bottles of fruit, yards of cheek, vivid imaginations, no limit of language and no trace of conscience, will easily gather more dollars in a single season than a conscientious, fair dealing, local grower, can get in a life time of faithful work.

Primarily this is why the foreign tree dealers continue to flourish ; because there is money in the business. They are after money and are more interested in gathering dollars than in the distribution of reliable horticultural information. As a rule their motto is 'Get money honestly if you can, but get money.' In doing this they visit all parts of the state, they see all classes of people, they tell all kinds of stories, use various arguments and illustrations. These are often apt, ingenious and timely. They are intended to arouse the interest, fix the attention and stimulate the desire of the listener ; that they accomplish their purpose is evidenced by the fact that they secure the objective dollar. Admitting that the betrayal of trust, loss of interest, and disappointment often destroys the value of the lesson to the individual, the fact remains that the wide-spread, continuous, persistent, intelligent, persuasive, plausible and convincing missionary work of the foreign tree dealer does induce people to plant trees on the farm, in the village garden and on the city lot.

Not all their stories are true, nor all their trees good, neither are they all bad. Millions of cuttings of the white willow were sold the early settlers and became the foundation of the beautiful groves around the farm homes of Central and Southern Minnesota. Later on every farmer was visited from one to a dozen times each season and urged to plant seedling cottonwoods around his home. Eloquently the tree dealer pictured the discomfort of a home on the prairie unsheltered by trees during the long cold winter ; then came a glowing picture of such a home transformed by trees to a haven of rest and comfort, where the snow did not drift, the wind did not blow and the blizzard had lost its terror. That these itinerant

foreign tree dealers were powerful educators is evidenced by the living monuments they have raised in trees and groves and the empty pockets of their students. Millions of seedlings of the ash, box elder and soft maple have been distributed by foreign tree dealers. And we should not forget that in nearly every instance where the dealer secured an order for one or more thousands of those seedlings he had to lecture for an hour or more on the benefits to be derived by tree planting. The planting of small fruits has been greatly stimulated by the work of the foreign tree dealer. He stops at the humble home of the prairie farmer, exhibits his wonderful samples, natural size, talks of marvelous yields, assures the farmer that his soil is peculiarly adapted to the growth of small fruits, delivers an eloquent, truthful, carefully prepared and convincing dissertation on the healthfulness, economy and pleasure of a good supply of berries grown in one's own garden. The education is successful, the farmer and his family are convinced, and the order is given for Royal raspberries, Golden gooseberries, tree currants, grapes that needed neither covering or pruning and various other things so new, rare and wonderful, they were never heard of outside the catalogue of the foreign tree dealer. Nevertheless the farmer has been educated, inspired and benefited. His raspberries prove to be Turner or Philadelphia, his gooseberries are Houghton, and his currants Red Dutch. They cost him four prices but he got the fruit, the education, and the experience, while the educator got the money.

These foreign tree dealers are not all bad, neither are their trees all worthless. Only last year I found one who was selling budded apple trees for only one dollar each. He was doing a thriving business in the neighborhood of a local nursery where thrifty, well-grown trees of varieties approved and recommended by the Minnesota Horticultural Society were for sale at nominal prices. The local nurseryman, however, was unable to educate his neighbors up to the point of interest and confidence that would induce them to buy his trees. The foreign tree dealer with better methods did accomplish this and sold hundreds of trees. His budded tree nursery was, however, a myth existing only in his imagination. When it came to filling orders he purchased a fine lot of hardy, thrifty, well-grown trees from a well-known local grower less than 100 miles away. The trees were carefully handled and I believe are all growing well.

Our climate, the newness of the country, the character and habits of the people, make horticultural education a necessity ; the cheapest, most reliable means of education is that afforded by the Minnesota Horticultural Society, and the pioneer horticulturists of the state. The most expensive educator ; the unreliable educator ; but at the same time the best patronized, the most persistent and extensive educator is the foreign tree dealer.

He is successful because the people desire novelties and sensations, they are greedy for new things, they are easily humbugged, in fact rather seem to enjoy it. No other method of selling trees has yet been found so successful as personal canvassing from house to house.

No other means of education on the subjects of fruit raising and tree planting have as yet been discovered equal to thirty minutes personal contract with a well-qualified tree dealer.

New names, novelties and high prices are necessary to cover the cost of this expensive mode of selling trees.

So long as the people are able and willing to pay for this kind of education they will find instructors ready and willing to take their money.

The local tree grower who expects to harvest dollars, must enter the field with the foreign tree dealer and compete with him along his own lines, show as fine pictures, have as high sounding names, tell as large stories, charge as high prices; but furnish better stock.

Experience demonstrates the fact that the average man or woman who needs education in small fruit culture, prefers to pay one to two dollars per dozen for Golden Wonder strawberries rather than one dollar per hundred for Crescent, Warfield or Wilson.

A canvasser making a house to house canvass who should truthfully describe the good qualities and beauty of Linden Americana, offering them only one to a customer at \$2 each, would do a thriving business, where he would find few customers for Basswoods at 25 cents each.

The foreign tree dealer is a great educator. He comes high; but the people want him and as long as they are willing to pay the price they will get him in those things that are good and useful; we may imitate him, we cannot suppress him so long as he finds profit in the business. A tree dealer, like a prophet, needs to go away from home for either honor or wealth.

From Various Points.

Harrisons, Berlin, Md., have an attractive announcement in another column, as usual.

Professor Van Deman thinks York Imperial and Sutton Beauty are the best apples for New York state planting and that Burbank and Red June are the best Japan plums for market.

All shipments of fruit showing scale, codlin moth or other disease, are dumped overboard as soon as discovered at Puget Sound points. The same rule is enforced at Portland, Oregon, and at British Columbia points.

A maple tree eighteen feet in height is growing from the crevice between two limestone blocks laid with hydraulic cement in the roof of the Decatur county court house tower at Greensburg, Ind. Another victory for the Stringfellow root theory!

The Douglas Nursery Co., Waukegan, Ill., has closed a three years' contract with the United States government to furnish evergreen trees in large quantities. The government will plant young trees in the arid regions of the South, in Oklahoma, Texas, Arizona and elsewhere.

Ames & Munro, who succeeded Leonard Coates in the proprietorship of the Napa Valley Nurseries have more than doubled the amount of stock during the last six months. The firm has on hand orders from seven states, including New Jersey. It ships stock to New Zealand.

W. G. Whitney, proprietor of the Payette, Idaho, nurseries, was arrested recently in Butte, Montana, whither he had driven with a load of fruit from his orchards. He was acquitted of the charge of selling fruit without a license upon proving that he had placed his product in the hands of a Montana dealer.

FOR SALE

One of the oldest, best paying Nurseries in the South. Over 1,000,000 trees in best of condition. Large commercial and experiment orchard. Will sell for price of land alone. Owner desires to travel abroad.

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WANTED TO SELL interest in one of the best established and best equipped nurseries in the South, to a first-class, practical young nurseryman with some money to invest. The reason for wanting to sell is on account of too much work for owner, who has spent 30 years of his time in the business.

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Nick Ohmer, Margaret, Seaford, Ruby, Carrie, etc. 400,000 Clyde, 130,000 Glen Mary, 400,000 Marshall. Write for estimate on large lots. 100 varieties. Catalogue sent free.

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Have been fully tested in every section of the United States during the past 40 years. The stock now growing is up to the usual past high grade, all of thrifty growth, no old rubbish, and free from scale or disease.

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Apples, Cherries, Figs, Pears, (an extra fine lot of 100,000 standard 2 and 3 years, largely of Kieffer), Paper Shell Pecans, Plums (Japan) on Marianna, English Walnuts, Grape Vines, etc.
Peach Trees in car load lots.

EVERBEARING PEACH

A valuable novelty now offered for the first time.

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150,000 Amoor Privet—Unsurpassed as an evergreen hedge plant.
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150,000 Roses—Field grown, including 30,000 Marchael Niel budded upon Manetti, 3 to 5 feet.

Two acres in Canna.

Azaleas (home grown).

Broad leaved Evergreens, etc., etc., Biota Aurea Nana, Cedrus Deodora, Retinosporas and other rare coniferæ.

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100,000 Palms—(An especially fine lot of Latanias, Phoenix, Pandanus and Cocos Weddelliana.)

Ficus, Decorative Plants, Crotons, Bedding Plants, 10,000 Camphor Trees, Sub-Tropical fruits, etc.

Send for trade list and descriptive Catalogue.

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Strawberry Plants—From 30 acres set this spring (means millions of plants.)

25,000 Japan Plums—One year old from bud.

20,000 Grape Vines—One and two years old.

100,000 Asparagus—Conover's, Barr's and Palmetto, 2-year old.

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100,000 Peach Seedlings from Natural Pits.
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Such as Maples, Alder, Althea, Aucuba, White Birch, Catalpa, Honeysuckles, Nuts, Japan Quince, Deutzia, Ash, Broom, Walnut, Ligustrum, Philadelphia, Acacia, Currants, Willows, Sambucus, Spirea, Lilacs, Tamarix, Viburnum, Weigelia, and all sorts of Fruit Tree Stocks, all 1, 2 and 3 years old or stronger plants, now offered at very low prices by

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Apple, Crab, Standard and Dwarf ; bardy, Maple Silver, Willow Kilmar-
Pear, Cherry, Plum, Peach, Cham- nock, Black Champion, Fay's and
pion Quince, Apricots, Birch Cut- Cherry Currants, Rhubarb, Deutzia
leaf, Chestnut Spanish, Mulberry Candida, Spirea Billardi and Roses
Russian, Poplar Carolina and Lom- on our own roots.

SEND WANT LIST, WE WILL MAKE PRICES LOW.

THOMAS W. BOWMAN & SON,

Rochester, N. Y.

It was the best of 50 kinds again the past season at the Somerset Fruit and Plant Farm. I also have a large stock of all the best varieties of STRAWBERRIES, RASPBERRIES, BLACKBERRIES, ASPAR

We Put Up

APPLE ROOT GRAFTS

That Will Grow.

We make a specialty of putting up grafts for the whole-sale trade, either Piece Root or Whole Root.
Special prices on large early orders.

F.W. WATSON & CO.

Box 58.

TOPEKA, KAN.

Don't Forget



Vick

for true
stock of

Rathbun

Black- berry.

We are the introducers.

Write for prices.

PRICE REDUCED.

JAMES VICK'S SONS,

Rochester, N. Y.

THE ROSSNEY PEAR.

This pear grown and for sale only by the **Pioneer Nursery Co., Salt Lake City, Utah**, is attracting much attention. This firm was established in 1850. It is well known throughout the country and its endorsement of a variety means much. It is introducing the Rossney pear, every tree bearing a copyrighted and trade-marked seal. The eastern agents are the Phoenix Nursery Co., Bloomington, Ill.

Following is the copyrighted description of the Rossney :

Rossney Pear—A new and excellent pair, raised from seed at Salt Lake City, Utah. In size, medium to large ; very fine grain, flesh melting and very juicy ; very sweet. Ripens two weeks after Bartlett. Is an excellent keeper and shipper. The tree is a much stronger grower than Keiffer. Luther Burbank says, under date of October 5th, 1895 : " The samples of Rossney pear arrived in due season. The large size, handsome form and creamy yellow skin with crimson blush gives the fruit a tempting appearance ; and the rich, tender and creamy flesh of just the right texture, with no hard spots and an unusually small core, with its superior flavor makes it about the best pear so far seen. If the tree is vigorous, healthy and productive, would prefer it to any other, even the standard Bartlett and Seekel."

GENEVA, N. Y., Sept. 4th, 1897.

PIONEER NURSERIES CO.

Gents:—Samples of Rossney Pear at hand, little overripe but not so much so that I could readily detect excellent quality, and with the fine red cheek covering one side, and fine size, I should say it might, with time of ripening you say—two weeks after the Bartlett, be regarded as an acquisition to the list of good Pears.

Resp'y,

S. D. WILLARD.

KINMUNDY, ILLINOIS, Sept. 6th, 1897.

PIONEER NURSERIES CO., Salt Lake City, Utah.

Dear Sirs:—Your letter of the 1st at hand on the 4th, also samples (3) of Rossney Pear. What beauties, opened them in a crowd of fruit men, but too - them home to eat at my leisure. Really they were too handsome to cut, and as to eating qualities, well it is equal to the Bartlett at its best. I was completely captivated with those pears, and wondered if such trees as bore such pears could be saved from blight.

Shall mention the Rossney in October Visitor, which will be a trade edition of 5000 with colored plates.

If you think of putting this pear on the market have a photo made and let some artist make the color finish just as it is, so, it can be made into a fine plate. As to description, the copyrighted one is O. K. Hope to hear from you further on.

Yours truly,

E. G. MENDENHALL.

GENEVA, N. Y., Sept. 4th, 1897.

PIONEER NURSERIES CO., Salt Lake City.

Gentlemen:—Samples of Rossney Pears are received, and were in perfect condition. It is one of the handsomest pears we have seen with its yellow skin and brilliant coloring. The quality is good and if it will bear transportation well is a valuable acquisition.

Very truly,

W. & T. SMITH CO.

OGDEN, UTAH, Dec. 9th, 1895.

PIONEER NURSERIES CO., Salt Lake City.

Gentlemen:—Replying to your favor of the 5th, will say, I think you have a decided acquisition in the Rossney pear. We seldom find a single variety combining so many good points as does the Rossney. In size it equals Howell, in color it has the rich tints of yellow and carmine of the Clairgeau, in flavor it compares favorably with that old standard of excellency, Bartlett, in tree, as seen growing in your nurseries, Rossney surpasses in clean, thrifty, stocky growth, any variety with which I am acquainted.

Very respectfully,

D. M. MOORE.

BIGGS, BUTTE CO., CALIFORNIA, Oct. 28th, 1895.

PIONEER NURSERIES CO., Salt Lake City, Utah.

Dear Sirs:—An acknowledgement of your favor of the 27th of Sept., also samples of the "Rossney" Pear, has been delayed account of sickness of the writer. The fruit came in good condition, and we consider that you have a first-rate pear, and one which will, doubtless, prove valuable. It is of good flavor, and as our young hopeful said "tasted like more." Thanking you for your kind remembrance of us, we are

Yours very truly,

ALEXANDER & HAMMON.

BRIGHTON, N. Y., Oct. 19th, 1895.

PIONEER NURSERIES CO., Salt Lake City, Utah.

Gentlemen:—We send you by merchandise mail to-day the pear plates, and hope they will be entirely satisfactory. The pears sent ripened up beautifully and taxed our most brilliant colors to match the coloring. We have sampled them since painting, and all agree that they are as good as they look. Remarkably fine grained and excellent flavor.

Yours very truly,

C. F. NICHOLSON & SON,

Manufacturers of Nurserymen's Colored Plates.



HORTICULTURAL BUILDING.

TRANS-MISSISSIPPI EXPOSITION, - - - OMAHA, 1898.

The National Nurseryman.

FOR GROWERS AND DEALERS IN NURSERY STOCK.

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VOL. VI.

ROCHESTER, N. Y., MARCH, 1898.

No. 2.

HARMONY AGAIN.

Opposition to the Federal Scale Bill Overcome Through the Efforts of President Rouse of the American Association—Florists Added a Section But This Was Afterward Modified—The New York Bill.

In several states legislative bills to regulate the transportation of nursery stock are under consideration. It is probable that during the present alarm over the San Jose scale, laws will be made which will be found so inadequate to solve the problem or so unnecessarily restrictive that many amendments will be proposed. In the case of the New York bill, for instance the provisions were such as to elicit the criticism of the most prominent nurserymen in the state.

The federal bill was slightly amended in the senate, the changes in no way affecting the bill from the nurserymen's standpoint.

But while the changes in the bill are of little moment, a section was added at the instance of the florists, to which nurserymen took exception. Section 8 was as follows:

"That the provisions of this act shall not apply to florists' greenhouse trees, shrubs, plants, bulbs and so forth, commonly known as florists' stock."

Roses may be regarded as florists' stock or as nursery stock. It is deemed by the nurserymen unfair to require roses handled by nurserymen to be inspected while those handled by florists may be transported without restriction. The same florists who objected to the nursery schedule in the tariff bill demanded the adoption of section 8 of the federal scale bill. They secured the addition of the section in the senate through Senator Platt, of New York. They demanded and secured an ad valorem duty instead of a specific duty on bulbs and now, after a trial of the schedule, peremptory orders have been issued by the federal authorities in Washington to the American consul in Holland that hereafter exporters to the United States must deposit their catalogues with the American consul and that prices on all consular invoices must agree with the prices in the catalogues or written lists.

The New York Florists' Club has appointed Patrick O'Mara, representing Peter Henderson & Co., Charles H. Allen and John N. May a committee to visit Washington, Albany, Trenton, N. J., and other places in the interest of the florists. These gentlemen with others secured the following amendment to the New Jersey scale bill: "Florists' plants, flowers, cuttings, scions and buds grown under glass and commonly known as florists' stock are exempt from the provisions of this act."

There was an interesting scene in Albany on February 23d. A scale bill had been introduced in the New York legislature to which nurserymen took exception because of its inadequacy. A committee representing nursery and horticultural interests composed of President Irving Rouse, of the American Association of Nurserymen, Samuel D. Willard, of Geneva, and H.

B. Hooker, of Rochester, sought a hearing before the senate committee on agriculture. Those gentlemen met there the florists' committee above named who wanted the bill to include a section like that added to the federal and the New Jersey bills. The three florists were ranged on one side of a long table and the three nurserymen and fruitgrowers on the other side and then they went at each other, and incidentally at the subject, much to the entertainment of the senate committee, the members of which heard more about scions and buds and cuttings and creeping things than ever before.

Finally President Rouse called Chairman O'Mara of the florists' committee to one side of the room and told him that although the new section added to the federal bill could never be passed, he would on behalf of the American Association of Nurserymen agree to withdraw opposition provided the florists would agree to make the added section read as follows in both the federal and state bills:

"That the provisions of this act shall not apply to greenhouse plants, flowers and cuttings commonly known as florists' stock."

Mr. O'Mara agreed to this proposition in the interest of harmony and he and President Rouse at once wrote to their respective representatives in Washington to that effect.

There is, therefore, no opposition to the federal bill nor to the New York state bill as amended and both will undoubtedly be passed. The New York state bill is drafted on lines entirely supplementary to the federal bill.

PEARS \$7.50 EACH.

The London *Daily Standard* referring to Christmas fruit at Covent Garden, says:

Pears deserve more than a passing notice. Fifteen and twenty years ago, enormous pears from Paris used to be marked up in the Grand Row at Covent garden Market at ten, twenty and thirty shillings each, and they were even lent out for table decoration at West-end parties. They were immense fruits, and usually created much astonishment when seen. So with the large supplies of autumn pears. French fruits have monopolized the English markets. During the past few months, however, they have been eclipsed by the superior pears from California. The California Easter Beurrés are superior to the French ones. So with the Beurre Diel, Glou Moreeau, Winter Nelis, and Beurre Clargeau. A few pears are now coming from Guernsey and Jersey, and the Channel Island Châumontelles, of course, are always much sought after, when they are large and well colored. The English supplies are so short as to be hardly worth a notice.

In a copy of the Rochester, N. Y., *Telegraph* of October 28, 1823, recently presented to the Rochester Historical Society, is an advertisement of the first nurseryman in this country, William Prince, Flushing, L. I., in which he offers shrubs and plants and concludes as follows: "The Livingston *Journal* and *Spirit of Times* (Batavia), will please insert this three weeks and send their bills to Smith & Beebe, Rochester."

STATE BILLS PENDING.

Legislative Measures Under Consideration in Maryland, Delaware, Iowa, New Jersey, Ohio and Kentucky—The General Provisions are the Same in all the States—Summaries.

A bill guarding against the introduction of the San Jose scale was introduced in the Iowa legislature last month.

The most important gathering of its kind ever held in Maryland was that of nurserymen, horticulturists and entomologists in Baltimore, January 27-28 to discuss measures to control the San Jose scale. Charles G. Briggs of Washington county, presided. Professor William G. Johnson, state entomologist, one of the most active in the county, gave very practical points regarding the extent to which the scale has developed in the state.

A permanent organization to be known as the Maryland State Horticultural Society was formed with these officers: President, Charles G. Briggs, Sharpsburg; vice-president, Captain R. S. Emory, Kent county; secretary and treasurer, James Harris, Kent county. J. W. Kerr and Orlando Harrison are county vice-presidents.

A committee consisting of R. S. Emory, Samuel B. Loose, Howard Davis, Samuel Vanort and Professor W. G. Johnson drafted a bill which has been introduced in the Maryland general assembly and which is thought to be sufficiently comprehensive to eradicate the San Jose scale and other orchard pests from the state. In addition to providing for the establishment of a state horticultural department, the bill arranges for the creation of the offices of state entomologist, pathologist, and horticulturist, and that the professors holding those position at the Maryland Agricultural College and Experiment Station shall be the state officers. It provides that the duty of the state entomologist and pathologist shall be to seek out and suppress all pernicious insect pests and contagious diseases destructive to the horticultural and agricultural interests of the state.

The bill empowers the state officers to enter upon any property in the state for the purpose of inspecting and destroying the insects and diseases that endanger plant life. The cost of the destruction of plants and the extermination of the pests shall be assessed against the person on whose property they shall be found.

The duties of the state officers will be to visit every county at least once a year for the purpose of inspecting the horticultural interests and their healthfulness. In addition the state officers are required to visit the nurseries of the state every six months, and if they are found to be free from disease to give the owners certificates of inspection. If disease or insects are found they shall cause whatever plant life they think necessary to be destroyed. Should any nurseryman ship any plants or trees without having a certificate of the state officer attached, he shall be deemed guilty of a misdemeanor and be fined not less than \$10 or more than \$100.

Nursery stock shipped into the state without certificate is liable to seizure and destruction if found infested.

The bill further provides for the appropriation of \$6,000.

NEW JERSEY.

The New Jersey legislature is considering a bill to prevent the spread of injurious insects in that state. This bill provides that all trees and plants shipped into the state must be

certified to be free from all injurious insects, and all nurserymen and fruit growers must, likewise, keep their stock free. The state entomologist is to have charge of inspection and testing. The executive committee of the State Board of Agriculture is to appoint a commission of three persons in each county who are to have power to condemn trees or plants, or to direct that they shall be cleaned. If the judgment of the county commissioners is not acceptable, the state entomologist will decide. Appeal from his decision may be taken before a committee, consisting of the director of the Experiment Station and the president of the State Board of Agriculture. Where they agree, their decision shall be final; where they disagree, the decision of the state entomologist will stand. No provision is made thus far for compensating any person whose trees or plants are destroyed. When first introduced, this bill included peach yellows among the subjects to be investigated, but that part of the bill has been dropped, as it was not thought possible to legislate successfully against the yellows. The bill is aimed chiefly against the San Jose scale.

OHIO.

A committee of the Agricultural Society with Hon. N. H. Albaugh as chairman, has prepared a bill which has been presented to the Ohio legislature, providing that the secretary of the Ohio Agricultural Society, the president of the Ohio Horticultural Society and the director of the Ohio Agricultural Experiment Station shall constitute an Ohio State San Jose Scale Commission whose duty it shall be, through its assistants and employees, among whom shall be a competent entomologist to inspect all nurseries and orchards and disinfect or destroy trees or plants. All nursery stock grown in the state must be inspected on or before September 1st of each year and all nursery stock shipped within, out of or into the state must be accompanied by a proper certificate of inspection. For each such state certificate issued to a nurseryman within the state \$10 shall be paid, to be used to defray the expenses of the commission.

KENTUCKY.

Regarding the present San Jose scale law in Kentucky, J. M. Samuels, Clinton, Ky., says, "It is a dead letter. Since its passage, nursery stock has been shipped indiscriminately into the state. Officers whose duty it was to enforce the law refused to do so, when cases of infringement were reported to them. I think it is unconstitutional as it discriminates between nurserymen of this and those of other states.

"I have recently gotten our representative in the Kentucky legislature to introduce an act copied somewhat after the Virginia law, with an added penalty for bringing into the state from an orchard not inspected by a state entomologist. This act if passed will be as stringent on home as on foreign nurseries. I inserted a clause making it a fine of not less than \$100 and forfeiture of office, for any officer to refuse to prosecute any violation of the law that should be reported to him.

"The state entomologist, after examining all the nurseries of the state last summer, reported that he found no trace of the San Jose scale."

DELAWARE.

There is before the Delaware legislature a bill providing that three commissioners of agriculture shall upon knowledge of existence of San Jose scale in the state notify owners to disinfect or destroy the trees or plants. Failure to do so will sub-

ject the owners to a fine double the expense of so doing.

The commissioners shall cause all nurseries in the state to be inspected and shall make such regulations as are deemed necessary regarding the sale and distribution of nursery stock grown in the state or imported into the state. Failure to comply with such regulations shall make it unlawful for such persons to bring suit in the courts of the state for the recovery of money due for such nursery stock. Two thousand dollars is to be appropriated for carrying the law into effect.

CANADIAN COMMENT.

In the February issue of the *Canadian Horticulturist* is the following comment on San Jose scale :

It is estimated that about 3,000 trees in our Province are affected and must be immediately destroyed in order to stamp out the pest. This will be the work of the Province. Then it will rest with the Dominion to pass an act that will prevent the introduction of any more infested fruit or fruit trees from the United States, for unless the action of the local house in stamping it out, is sustained by the Dominion in keeping it out, all our efforts will be in vain. Whole groves of forest trees have been destroyed in some sections of the United States, we have been informed, as the only sure method of checking the spread of the San Jose scale.

A committee *re* San Jose scale interviewed the Minister of Agriculture, on Tuesday, January 25th. In response to their demands for prohibition of the importation of affected nursery stock, the minister said that the United States had prohibited the export of such trees.

No San Jose scale has yet been found in any Canadian nursery.

W. N. Y. HORTICULTURISTS.

More than the usual large number attended the forty-third annual meeting of the Western New York Horticultural Society, in Rochester, January 26-27. Among the nurserymen present were President William C. Barry, Vice-president S. D. Willard, Irving Rouse, C. H. Perkins, Wing Smith, E. Moody, Nelson Bogue, Thomas W. Bowman, John Charlton, Mr. Henry, of Sears, Henry & Co., Geneva, N. Y., J. J. Harrison, Painesville, Ohio., H. T. Jones, Elizabeth, N. Y., H. S. Wiley, Cayuga, N. Y., C. M. Hooker, Rochester.

Professor W. B. Alwood, state entomologist of Virginia, gave the result of two years' experience with the San Jose scale. There were papers and discussions by Professor H. E. Van Deman of Virginia, Professors J. P. Roberts and M. V. Slingerland, of Ithaca, Professor Victor H. Lowe, Director W. H. Jordan, Professor S. A. Beach and Dr. L. L. Van Slyke of Geneva, George T. Powell, of Ghent, Professor Card of the University of Nebraska, Professor John Craig of Ottawa, Can. Opinions concerning the future of the fruit industry by such men as Mr. Powell, Mr. Willard, Mr. Woodward, Mr. Van Deman and many other prominent and experienced men contained ideas that set the hearers to thinking.

At the afternoon session of the first day nearly 1,000 were present. One of the oldest members of the society there was C. L. Hoag, of Lockport, the originator of the Niagara grape. There were displays of fruit by Ellwanger & Barry and the Geneva Experiment Station that opened the eyes of the oldest horticulturists. A large number of students of Cornell University were present. William C. Barry was re-elected president and John Hall, Rochester, secretary. S. Wright McCollum, of Lockport, won the Ellwanger prize for the best display of fruit.

RELATIVE VALUE OF STOCK.

In a symposium on the value of early and late maturing trees in a nursery the *Rural New Yorker* publishes the following opinions :

Professor L. H. Bailey, New York.—“I do not believe that mere lateness of maturity in the nursery is any particular disadvantage to the tree. The question specifies that the tree shall be healthy and not deformed. It should, of course, not be stunted. A tree of merely slow growth is often better than one which is making a very vigorous growth.”

Professor H. E. VanDeman, Virginia.—“The trees which fail to grow so well as others under like conditions in the nursery row, have been noticed, according to my observation and experience, to come into bearing earlier than those which grow vigorously. If they are healthy, I would not fear to plant such in an orchard. I have made very large bearing trees of just such trees. But it is a common notion that none but the more thrifty trees should be planted. Slow growth is attributable, in many cases, to disease, but it is not always so.”

T. T. Lyon, Michigan.—“I am not inclined to favor the selection of large, overgrown nursery trees, for orchard planting. My own experience would indicate that sound, healthy trees of moderately vigorous growth can be more surely relied on for satisfactory results. It should not, however, be forgotten that nursery trees are worked upon seedling stocks, and that seedlings are liable to vary greatly. If, therefore, after digging the young, any are found with scion outgrowing the stock, indicating a lack of vigor in the seedling; or if there is enlargement at the point of union between stock and scion, indicating incompatibility, such trees are likely to prove unhealthy and short-lived, and should be rejected.”

George T. Powell, New York.—“I do not consider the lighter stock in the nursery inferior. Influences which we cannot fully explain will cause some buds to start slower than others, but if they show thrift and vigor, the light stock will make equally as good trees. In one block of Bartlett pears I set, several years ago, a lot of heavy, three-year old-trees, also a lot of two-year-olds, both lots well grown, the lighter trees came into bearing at the same time that the heavy trees did. The light stock suffers less in the change from the nursery to the orchard, and seems to make the most growth for the first two years. I always buy medium stock.”

S. D. Willard, New York.—“Aside from the fact that the last dug trees from a given variety in a nursery row are likely to be of smaller size than those that have been dug in the earlier stages of growth, I know of no reason why they are not equally as good. The orchards that I have are, in the main, made up of this class of trees that purchasers are not inclined to take, and as you have seen them you can judge whether or not we have been wise in our plantings. Those first dug are likely to be heavier at the same age, and the impression often is that they are of more value; yet, in my own experience, I have no proof that such is the fact.”

Professor W. B. Alwood, Virginia.—“My observation covering a period of years, is that the vigorous, well-grown, two-year trees transplant more readily, grow off with greater vigor, and produce, from my standpoint, finer trees. For instance, these vigorous young trees will stand severe pruning, both of the roots and tops, and throw out at once a stronger growth than will the older stock which has required a longer period to reach maturity in the nursery. This fact has been observed by me, both in nursery work done under my own control, and in the larger nurseries of the state.”

REPRESENTS NURSERY INTERESTS.

CENTRAL MICHIGAN NURSERY COMPANY, CHARLES A. MAXON, GENERAL MANAGER, KALAMAZOO, MICH., FEB. 15, 1898.—“Nearly every important industry in this country has a publication to represent its business interests, and it is with pleasure that we hand you herewith draft to cover our subscription for the coming year, and to express to you our appreciation of the NATIONAL NURSERYMAN, which in our opinion represents the nursery business in a most excellent manner. We wish you continued success.”

CALIFORNIA REASSURANCE.

Words of Encouragement From Those Who Have Combatted San Jose Scale in its Home in this Country—Leonard Coates Would Allay Alarm—Scale Ran Its Course.

Leonard Coates, the well-known nurseryman of California, has observed the agitation of the San Jose scale question and he writes thus regarding it in the *California Fruit Grower*:

Our horticultural friends in the East have the scale and have it badly. The excitement existing at the present time transcends that of a Frenchman over a Boulanger or a Dreyfus. Is the twentieth century American becoming Gallicized? A little more of the proverbial phlegm of the Teuton or of the Anglo-Saxon might not be a bad admixture. The university professors and the experiment station directors must do something to make the public believe they earn their living, and they cannot afford to let such an opportunity slip whereby their ardent zeal may be displayed. And they cannot well be blamed. And the nurserymen, those disinterested, public-spirited nurserymen, who have arisen in their wrath and indignation and demanded, not only state, but federal legislation in the matter, and have probably succeeded in getting their bill passed, do they not all seek to impress the public that on their grounds and on their trees no San Jose scale is to be found, however it may be raging elsewhere? And they, too, cannot be blamed.

There is not the slightest need for this panic, for that is what it amounts to. In fact these occasional visitations of scale—red, white or black—or potato bugs or army worms, are blessings in disguise. The orchardist is taught that he must watch his trees closely, and see that they are kept clean and healthy. Such trees shall never be seriously harmed by scale, which, like lice in a chicken house, is often the sign of neglect and filth.

The San Jose scale in California was combatted by spraying with various washes, which where it was not overdone, acted like the bath and scrub down given the chronic dyspeptic who goes to a sanitarium for relief. It was what was most needed. But this scale, while it exists in California, and probably will continue to do so, was not given its death blow in lime, salt and sulphur, or any other decoction, although these measures were useful in many cases, but by a small internal parasite, *Aphelinus fuscipennis*, which keeps the scale in check. Added to this, several species of ladybirds aid greatly in retarding its spread.

There is no cause for alarm, then; season with salt the dicta of the professors; look askance at the nurseryman who brags the loudest, and keep cool. If you spray use either the lime, sulphur and salt, or kerosene emulsion. Get the correct formula for preparing either, and the right time for applying. The experiment stations will give such information. Protest against summary proceedings, such as orders to dig up and burn, and if persisted in, seek redress in the courts. Do this, and wait for nature's remedies, for nature, if given a free hand, will equalize and regulate all these things, and then—well, prepare for the brown, the black, and the white scale, for we have them all.

SCALE RAN ITS COURSE.

J. W. Snowball, Yolo county, Cal., writes:

I see by the exchanges that A. W. Moore of Missouri says in the *American Agriculturist* that Professor J. M. Stedman declares this dangerous insect pest is more destructive and more dangerous than all other insect or fungus diseases known. Now I do not want to controvert what scientific men say, or to deny the destructive properties of the San Jose scale, but simply for the benefit of horticulturists and fruit growers to say that the pest first made its appearance in California, its progress was rapid and its effects were blighting on fruit trees especially apple, pear, cherry, peach and plum, and it even attacked the maple and willow and other shrubs of the streams, but it only lasted about five years, in three of which it was virulent in the extreme, but, strange to say, it has entirely disappeared—not stamped out by remedies applied, but simply like the seven-year locust or any other plague, it has mysteriously dropped out of sight; whether from the attack of some insect or from climatic effect, or that it ran its course and died out, is a mystery I cannot pretend to fathom.

WISCONSIN HORTICULTURISTS.

At the annual meeting of the Wisconsin State Horticultural Society, at Madison, February 1-4, Professor L. H. Bailey, Ithaca, N. Y., delivered a stereopticon lecture. A number of nurserymen were present. The following officers were elected: President, L. G. Kellogg, Ripon; vice-president, T. J. Johnson, Baraboo; secretary, A. J. Phillips, West Salem; treasurer, R. J. Coe, Ft. Atkinson.

President L. G. Kellogg, Ripon, was appointed by the governor as chairman of a horticultural commission on the exhibition of fruits at the Trans-Mississippi Exposition at Omaha.

Secretary Philips was appointed to superintend the continued planting of the trial station at Wausau, central for our state and on the northern limits of orchard work. The plan of planting is continuous for several years, first of a variety with a full 6 ft. tree, then several root grafts of the same kind to remain in position as orchard trees, then a tree of hardy stock, largely Virginia crab, to be worked later in the limbs with the same variety. This continual planting for years is to test the plan of raising an orchard of continuous bearing without a skip. In the past two years we have planted 700 trees with marked success, other states are watching this trial orchard with more than usual interest.

Janesville, Wis.

GEORGE J. KELLOGG.

PROFESSOR ALWOOD'S ENDORSEMENT.

Regarding the federal scale bill drawn and adopted at the convention of the American Association of Nurserymen, in St. Louis last June, and now before congress, Professor W. B. Alwood, of Virginia, says:

This bill has run the gauntlet of much criticism, and has been made the subject of much discussion in committees of fruit growers, entomologists and before committees of congress; and while its provisions may not suit entirely the views of many persons, it is thought that, under it, we will be able to secure, perhaps, the best possible treatment of this subject which can be accomplished at the present time. Whatever legislation of this sort we may adopt, its execution must be left largely to the secretary of agriculture, who will, doubtless, act through the trained heads of the scientific divisions of the department. The bill under consideration provides for exactly this sort of thing, and if passed by congress, we will certainly be enabled to check, in a large measure, the dissemination on nursery stock of such serious pests as the San Jose scale in interstate commerce. We trust that it may operate to prevent the introduction of well known pests from some other countries. This measure has been indorsed, at least in principle, by practically every state horticultural society that has met during the past season.

Obituary.

Edwin Davis, president of the Franklin Davis Nursery Company, Baltimore, Md., died February 3, at his home at Halthorpe, Baltimore county, of typhoid fever and peritonitis. He had been sick two months. Mr. Davis was thirty-eight years old and was born in Staunton, Va. His father was the late Franklin Davis, founder of the company. Messrs. Howard and Joseph Davis, brothers of the deceased, are also members of the company. A widow and five children survive him, as also does his mother, Mrs. Maria Davis, of Baltimore. A sister is Mrs. Maria Fulton, wife of Charles L. Fulton. Mr. Davis was a member of the Friends' Meeting House.

PROSPECTS IN WISCONSIN.

E. C. Alsmeyer, Arlington, Wis., discussed "Prospects for Wisconsin Nurserymen" at the annual meeting of the Wisconsin Horticultural Society at Madison last month. He said:

Verily there is a streak of light in the nurseryman's horizon. Conditions are found in present history similar to those that formerly existed and with the better prices for farm products and labor, money more plentiful than the year just past, we may safely conclude from the laws of cause and effect that similar results will follow. From the reports of fellow nurserymen and reports of our agents in different parts of the state, we believe that the time is near at hand when we will be able to make the genuine good old time deliveries. The past is in many respects the mirror of the future. Nursery stock is oftentimes classed among the luxuries and people will buy only the necessities in hard times. Consequently the price of nursery stock went down and down till the nurseryman lost money on every tree he sold. This caused some of our nurserymen to buy a great deal of their stock from southern growers as they could buy cheaper than they could raise it, and then trees were sold for what they were supposed to be, "home grown." As George Herbert says "Honor and profit do not always lie in the same sack."

This has in my opinion been one of the main features in the hard times for honest nurserymen, as the above mentioned stock was in a great many cases not near to the standard, the trees being badly bruised from handling, repacking and reshipping. Exposed to the air and not acclimated to our northern winter they were of short life; while in many instances they had no life left at all when the planter received them. This has discouraged the general planter and he thinks because in past years when he bought eastern-grown trees and they lived and did well for him or his neighbor, that we in Wisconsin, or in the West, cannot grow first-class stock and in many cases prepare to pay \$6 per dozen for eastern-grown apple trees in preference to \$2.50 per dozen for better, home-grown trees.

Now this should not be. As we have combinations in almost every line of business why not have one in the nursery business? Why not have more unison in prices? A first-class apple tree cannot be grown to six or seven feet and then sold for less than \$3 per dozen or \$20 per 100 and leave any profit.

I think the sooner we get to this point of unison prices the better it will be for us and for the planter, as this will lead to the encouragement of home trade. By so doing we would encourage men to start local nurseries all over this country.

As for Wisconsin nurserymen they will increase and prosper in the same proportion as the importation of southern nursery stock is discharged and home nurseries are encouraged.

PAPER SHELL HICKORY.—A. S. Fuller, in his "Nut Cultivist," says that but one paper shell hickory has been propagated and disseminated. The original tree is growing on the farm of Henry Hales, near Ridgewood, N. J., is 75 feet in height, and is more than 100 years old. Mr. Fuller named the variety Hales' paper shell. The nuts are nearly as large as walnuts. Their surfaces, instead of being in ridges, are like English walnuts, and the shells are so thin that they may be cracked with one's teeth. Scions have been sent to nurserymen and a Central New York firm, out of 4,000 scions, produced only eight grafted trees which died.

WICHITA NURSERY ASSOCIATION.

The Wichita Nursery Association, Wichita, Kan., has been incorporated with a capital stock of \$20,000. The directors are W. E. Stanley, L. S. Naftzger, Finlay Ross, L. M. Schell, A. N. Wallace, Whitney Tucker and W. F. Schell. The officers are L. S. Naftzger, president; Whitney Tucker, vice-president; W. F. Schell, secretary and treasurer.

Mr. Schell is one of the oldest nurserymen in Kansas. He has been in the business for a life time and has had years of experience, both in the propagating and selling departments. He was born in Geneva, N. Y., and served his apprenticeship there. He is a member of the American Association of Nurserymen and has a wide acquaintance among nurserymen.

The company already has \$2,000 invested in seeds, cuttings and grafts which will be planted on its grounds at 1930 North Emporia avenue.

WILSON J. PETERS.



WILSON J. PETERS.

Wilson J. Peters was born in Adams County, Pennsylvania, Aug. 9, 1894. Nineteen years later, with his father, George Peters, he moved to Ohio, and they engaged in the nursery business at New Carlisle, under the firm name of George Peters & Son. About eight years later they removed to Troy, Ohio, where they continued in business until the father's death in 1883, since which time the business has been carried on by the two sons, Wilson J. and Norris B. Peters, under the name of George Peters & Co.

George Peters & Co., in partnership with J. H. Skinner, also have a nursery of some three hundred acres at Topeka, Kans., known as the Capital Nurseries, Peters & Skinner, proprietors. The land devoted to the business in Ohio amounts to over seven hundred acres.

Mr. Peters is a member of the American Association of Nurserymen and of the executive committee of the American Nurserymen's Protective Association. In both of these organizations, as among nurserymen generally, Mr. Peters' opinions on subjects connected with the trade are sought and are highly regarded.

THIS ADVERTISING SELLS STOCK.

THOMAS W. BOWMAN & SON, ROCHESTER, N. Y., FEB. 12, 1898.—"We are pleased to tell you that we are receiving inquiries for the stock mentioned in our advertisement in this month's issue of your journal, and having closed out some of the varieties will have to ask you to cross off the apricots and cherry currants in next's month's insertion."

SAMUEL D. WILLARD, GENEVA, N. Y., JAN. 21, 1898.—"In the hard times we have been having encouragement is very slight to attempt anything in the way of promoting trade interest, but I certainly highly appreciate your journal; otherwise I should not hand you this advertisement. I want to encourage and aid such a good publication as yours."

The National Nurseryman.

C. L. YATES, Proprietor.

RALPH T. OLCOTT, Editor.

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THE NATIONAL NURSERYMAN PUBLISHING CO.,

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OFFICIAL JOURNAL OF THE AMERICAN ASSOCIATION OF NURSERYMEN.

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Advertising rates will be sent upon application. Advertisements should reach this office by the 20th of the month previous to the date of issue.

Payment in advance required for foreign advertisements.

Drafts on New York or postal orders, instead of checks, are requested.

Correspondence from all points and articles of interest to nurserymen and horticulturists are cordially solicited.

AMERICAN ASSOCIATION OF NURSERYMEN.

President, Irving Rouse, Rochester, N. Y.; vice-president, E. Albertson, Bridgeport, Ind.; secretary-treasurer, George C. Seager, Rochester, N. Y.

Executive Committee—C. L. Watrous, Des Moines, Ia.; R. C. Berekmans, Augusta, Ga.; F. H. Stannard, Ottawa, Kan.

Committee on Transportation—N. H. Albaugh, Tadmor, O.; Irving Rouse, Rochester, N. Y.; A. L. Brooke, North Topeka, Kan.; Silas Wilson, Atlantic, Ia.; N. W. Hale, Knoxville, Tenn.

Committee on Tariff—W. C. Barry, Rochester, N. Y.; J. J. Harrison, Painesville, O.

Committee on Legislation—C. L. Watrous, Des Moines, Ia.; N. H. Albaugh, Tadmor, O.; Silas Wilson, Atlantic, Ia.; Irving Rouse, Rochester, N. Y.

Annual convention for 1898—At Omaha, Neb., June 8, 9.

Entered in the Post Office at Rochester, as second-class matter.

ROCHESTER, N. Y., MARCH, 1898.

TOPIC FOR OMAHA MEETING.

Apropos of our comment on uniformity of names of fruits in the February issue, B. Buckman, of Illinois, says: "The confusion arising from synonyms is one for which nurserymen are really responsible, and which they can easily rectify by concerted action. There is no good reason why a variety should be Newtown Pippin, Chenango Strawberry, Hightop Sweet, in one part, and Albemarle Pippin, Sherwood's Favorite, Sweet June, in another, since there is a National Nurserymen's Association."

We have suggested that at the Omaha convention of the American Association in June this subject might be profitably discussed. There will be exhibits at the Trans-Mississippi exposition which will serve as object lessons in this connection. The American Pomological Society stands ready to endorse what its president, C. L. Watrous, chairman of the executive committee of the American Association may suggest on this subject.

James MacPherson, Trenton, N. J., the well-known land-

scape gardener and trenchant writer, says: "The NATIONAL NURSERYMAN deserves great credit for its advocacy of authoritative names for plants and fruits, but it is evident that something stronger than mere advocacy is necessary. You may remember that I offered to correct any catalogues sent me by nurserymen growing ornamentals two or three years ago, at their own price. Well not a single one of them took advantage of the offer, and but one had anything to say about it. It happens that this one firm are about as correct in the matter of coniferous evergreens as any firm in America, and it is their opinion 'that they had best use the names known to their customers.'

"Their customers, I imagine, know precious little about names as a rule. The majority of a nurseryman's customers using names are jobbers and peddlers to whom anything novel in a name is a godsend, be it new or old! In every view of the case, uniformity is desirable."

MATTER OF SELF-INTEREST.

"Progressive Massachusetts peach growers are up in arms at another attempt on the part of Boston commission men, and nurserymen from outside the state, to foist upon the statute books a measure most odious to the interests most vitally concerned," writes Fred H. Johnson in *Rural New Yorker* regarding yellows legislation. "For two successive years, a similar bill, proposing to destroy all trees affected by the so-called disease, and to prevent the sale of prematurely ripened fruit, has been defeated through the testimony of a few of the up-to date and most scientific peach growers in the state before the joint house and senate committee on agriculture."

Professor Maynard of the Amherst Agricultural College urges fruit growers to refrain from sending inferior fruit to market as a matter of self-interest and believes that legislation to control the marketing of such products is unnecessary if not unconstitutional.

It is much the same as regards nurserymen and the San Jose scale. Self-interest will prevent the dissemination of the scale in these days of lively competition and a desire to build up or sustain a reputation for honest methods.

GEORGIA LAW.

The Georgia legislature last December passed a bill providing for the establishment of a special department of horticulture and pomology to be a part of the department of agriculture of the state under the control of the commissioner of agriculture who shall appoint an entomologist recommended by the State Horticultural Society to assist him in the work of the new department.

That entomologist shall encourage horticulture and pomology in the state and publish statistics regarding the industry. He shall visit the orchards, nurseries, packing houses and report the existence of any pests or diseases to the commissioner of agriculture who shall order orchards or stock to be disinfected or destroyed.

Should disagreement arise in any case, the commissioner of agriculture shall select one person, the objector another person and the two thus selected shall choose a third person. The arbitrators shall take testimony and render to both the ob-

jector and the commissioner of agriculture a written decision. If the decision be against the objector the sheriff shall execute the order of the commissioner with all costs, including \$1 for each arbitrator, or the objector, otherwise the county pays the costs. Refusal to comply with these provisions shall constitute a misdemeanor.

The salary of the entomologist is \$1,500, the expenses of the new department \$1,000.

HIGHER PRICES IN SIGHT.

Editor NATIONAL NURSERYMAN:

Enclosed draft for \$1.00 to pay for NATIONAL NURSERYMAN 1898. It is an up-to-date trade paper, we think. Have had an open winter here—but little snow and no zero weather no frost in ground at this date. Spring trade promises to be good and higher prices will no doubt prevail later in the season all along the line. Commercial varieties apple and peach will be practically off the market when the usual shipping season begins, we think.

New Haven, Mo., Feb. 19.

R. J. BAGBY.

NEW TENNESSEE NURSERY.

One of the most promising of recently established co-operative communities is that at Ruskin, Dickson county, Tenn., 50 miles west of Nashville. There has developed the nucleus of a possibly valuable tree and plant nursery. A peach and plum block has just been planted, consisting of over 1,000 trees in 208 varieties.

This will be, by far, the most interesting and extensive test ever attempted in Tennessee. In grapes, apples, pears and small fruits, the trials will be fully as extensive, and much attention will be paid to producing improved varieties, wherever practicable. From 6,000 to 10,000 trees will be propagated and planted annually, until the land is occupied, selecting, as time goes on, from the varieties found best adapted to the locality.

NO SCALE IN KANSAS.

Editor NATIONAL NURSERYMAN:

We wish through your valuable journal to correct a false statement made in the St. Louis *Post-Dispatch* of January 7, 1898, to the effect that Kansas and Illinois were badly infested with the San Jose scale. A similar statement was made in *Colman's Rural World*.

So far as Kansas is concerned, not a single case of the scale has yet been discovered within the border of the state. This statement is not made at random nor because we are at all careless concerning this pest. Two competent men, Professor Edward Popenoe, entomologist of the State Horticultural Society, and Professor Hunter of the State Agricultural College, have both inspected in different parts of the state, and are constantly on the lookout; but have not discovered any infested stock or orchards, to this date.

By proper precaution, which is being taken, it is to be hoped we shall remain clear.

A. L. BROOKE.

N. TOPEKA, February 2, 1898.

Among Growers and Dealers.

R. W. Allen, Hudson, N. Y., is out of the nursery business. Small fruit plants are a specialty with P. D. Berry, Dayton, O. James Vick's Sons are introducers of the Rathbun blackberry.

J. L. Pettigrew, Morrison, Ill., is no longer in the nursery business.

Fitzgerald peach trees can be had of A. D. Pratt, Rochester, N. Y.

The Deming Co., Salem, O., is pushing spraying outfits with success.

Two million strawberry plants are offered by E. J. Hull, Oliphant, Pa.

J. E. Bever has succeeded to the business of Bever & Son, Keithsburg, Ill.

Rocky mountain dwarf cherry can be had of Whiting Nursery Co., Boston.

Fay's currants at reduced rates are offered by F. H. Burdett, Clifton, N. Y.

Tree roses at a bargain are offered by Thomas Meehan & Sons, Germantown, Pa.

It is reported that California nurseries have no Bellflower or Newtown pippin stock on hand.

The value of a peach tree six years old has been estimated, by peach growers, at from 25 cents to \$2.

William Nicholson is the new president of the American Carnation Society. Albert M. Herr is secretary.

George J. Kellogg & Son, Janesville, Wis., are strawberry specialists and growers of hardy trees for the Northwest.

Roses on own roots of their own growing and Keiffer pears are offered by the Pheonix Nursery Company., Bloomington, Ill.

J. M. Samuels, Clinton, Ky., claims the largest nursery in Kentucky and the largest experiment orchard in the United States.

Fine colored Colorado spruces and over 1,000,000 evergreen seedlings are offered by D. Hill, the evergreen specialist, Dundee, Ill.

State Entomologist S. A. Forbes of Illinois, reports that San Jose scale has been found in nineteen places in fifteen counties of that state.

It is reported that Professor L. H. Bailey has started an orchard to be grafted from trees in different parts of the country which are famous for producing fine fruit.

The Storrs & Harrison Co., Painesville, O., have in special surplus a large variety of desirable ornamental stock, also pear, plum, cherry and peach, at bottom prices.

G. C. Butz, of Pennsylvania Experiment Station estimates the total peach area of the state at 11,000 acres largely concentrated in three or four counties in the southeastern part of the state.

Fertilizers for nurserymen are a specialty with George F. Taylor's Sons, 80 Pine street, New York city. They have the plant food needed for nursery lands which have been exhausted by repeated nursery use. Their line includes many kinds of fertilizer chemicals and materials.

PRACTITIONER'S VIEW.

Experience of Captain R. S. Emory, of Maryland, in the Suppression of San Jose Scale—First to Use Whale-oil Soap—A Prominent Pear Grower Gives Advice.

At the recent meeting of nurserymen, horticulturists and entomologists in Baltimore, Md., Captain R. S. Emory, Chestertown, Md., one of the most successful pear growers in this country and the first to use whale-oil soap in the suppression of the San Jose scale, read a paper on that subject. Captain Emory has used over thirty-four barrels, nearly 14,000 pounds, of whale-oil soap in his orchards fighting this pest during the past four years.

We have heard much from the professional side; now let us consider a few words from the practitioner.

Captain Emory referred to the alarm felt in many sections regarding the scale and emphasized the statements of entomologists as to the danger of its spreading to all parts of every state. He thinks it a much more troublesome pest than the codling moth, pear psylla, midge or Colorado beetle. Upon the subject proper of his paper Captain Emory said:

"While whale-oil soap, in my experience, has held this pest in check and reduced it, in no single instance has it completely destroyed it on old bearing trees. Furthermore, I do not believe there ever will be a wash found that will completely eradicate it. I have thoroughly tried all the washes that have been recommended for the destruction of this pest, and from my own practical experience I prefer to use whale-oil soap. This substance, when properly applied, will destroy every scale it touches. On young, smooth-barked trees not fruiting, the soap can be applied at the rate of two and one-half pounds to a gallon of water, but on bearing trees the amount should be reduced to two pounds to a gallon, as the stronger mixture invariably destroys the fruit buds. As I have said before, I do not believe that any wash can be applied so thoroughly that it will destroy every solitary insect upon a badly infested tree, from the fact that the creatures are so very small and seclude themselves under bark, in cracks and crevices, and in places where they cannot be reached by any spraying.

"Professor Johnson informs me that he has located it in sixteen counties in Maryland, from Washington in the northwest to Somerset in the southeast. In these counties there are forty infested localities, representing seventy orchards and nurseries, as compared with the eighteen reported a year ago. In these orchards there are 1,442,299 trees growing, of which 46,891 are infested with the San Jose scale. 40,367 of these have been killed outright by the pest, and have been dug up and destroyed, leaving in the orchards of the state still standing 6,512 trees. Any one reviewing these facts must be struck with the magnitude of this subject, if they stop to consider the great horticultural interests of this state. The pest must be checked and controlled, or it will certainly ruin an industry that stands very prominent in this state.

"There is much to be done experimentally for the destruction of this insect. The only remedies I have seen recommended besides whale-oil soap worthy of trial, are kerosene emulsion and pure kerosene applied on a clear, bright, sunshiny day. In company with Professor Johnson I have tried both these remedies, and found at least twenty per cent. of the insects alive several weeks after the applications were made.

The results were so unsatisfactory that I had the trees re-treated with whale-oil soap, and in the face of this heroic measure some of the insects still survive on those identical trees. In spite of this, one of the entomologists mentioned above tells us there is "little cause of alarm," and places great stress upon the wash he recommends (pure kerosene), imploring his readers not to rely on laws and conventions to do the impossible. He undoubtedly has an ax to grind—at any rate, I am perfectly willing to ask this association if the fruit grower has any cause of alarm? Does he need any protection for the preservation of his orchards, and the great fruit industry of the state?

"I believe I was the first to use whale oil soap as a remedy against the San Jose scale, and I have fought this insect persistently with that substance since 1892. Since 1895 I have used the soap in the form of a spray, and so completely destroyed the insects that less than a dozen living ones were found after many hours search by a deputy from the U. S. Department of Agriculture, and it was thought for a time that it would not be necessary to spray the orchard again. The spraying, however, was continued the following year, and not a living insect was found during the early part of the season of 1896, but late in the fall they were abundant throughout the orchard on many trees, even showing conspicuously on the fruit. Having tried and done everything possible in the way of sprays for the destruction of this pest, after talking with Professor Johnson and hearing of his success with hydrocyanic acid gas for the destruction of the San Jose scale upon nursery stock, I decided to try this method in my orchard. The work was to be purely experimental, and Professor Johnson assumed charge of the operations. There were many difficulties in the way, the greatest of which was a lack of funds by the department to purchase the necessary outfit for the prosecution of the experiments. We borrowed several large tents from the U. S. Department of Agriculture, and had several others made in Baltimore. The tents received from the government were octagonal in form, and were made of eight-ounce duck, which was afterwards painted with boiled linseed oil, thus making them perfectly gastight. I designed another form, which we term the 'box tent,' which has a square top and a larger base. These box tents were easily handled on small trees, but the sheet tents were very much more convenient on large trees, as they could be taken off with very much more ease and rapidity.

"We had many difficulties to overcome in this operation, and a long series of tests were necessary to ascertain what effect various densities of gas had upon the foliage and buds. These preliminary experiments were conducted at all hours of the day, and some of them at night. This done, others were made during cloudy and very disagreeable weather. After the preliminary tests were made, Professor Johnson placed the work of fumigating a block of Bartlett pears in the hands of Franklin Sherman, Jr., one of his students in entomology, who voluntarily assisted him throughout the entire period of experimental work. The tents were easily handled, and two ordinary laborers could remove them from one tree to another as fast as the chemicals could be prepared and placed for the generation of the gas. Each tree was left covered thirty minutes, and where the trees were of uniform size, from fifteen to twenty trees an hour could be treated.

"Of course I cannot give the results of these experiments,

as it will not be possible to draw any conclusions before another season has passed. We do not believe that our experiment has been unsuccessful. We have had all sorts of weather conditions to deal with, and a week or ten days of cloudy or rainy weather was not an infrequent occurrence during the period we were operating. Many important difficulties were overcome, and many obstacles as large as mountains were reduced to ant-hills. In my opinion, the hydrocyanic gas treatment is the only positive remedy we have to rely upon at present to completely exterminate the scale upon trees in limited areas. The fact that gas will penetrate every possible crack and crevice about a tree where soaps and washes will not reach, makes this remedy the only feasible one. Professor W. D. Coquillett, of the U. S. Department of Agriculture, who first discovered the use of this gas as an insecticide, informs me that he succeeded in destroying all the scales where he used it.

"I am informed that Professor Johnson is at present at work upon his report, in which he will give a detailed and accurate account of the distribution of the San Jose scale in our state. This report will also contain a complete account of his experimental work with soaps, kerosene emulsion, pure kerosene, gas, etc.

PRESIDENT ROUSE ON SCALE.

President Irving Rouse of the American Association of Nurserymen in a communication to the *Florists' Exchange* regarding Peter Henderson's criticism of the New Jersey scale bill, says:

"Maryland, Virginia, Michigan, North Carolina, Oregon, and other states, have already laws on this subject, many of them harshly drawn, and exceedingly ill-conceived. New York and Ohio have acts now before their legislatures. Canada also is considering the advisability of absolutely prohibiting the importation of American nursery stock. So that nurserymen and florists as well, are face to face with a condition, not a theory.

"The bill, 'H. R. 6894' now before congress has been most carefully drawn by a committee of the best posted entomologists in the country. Under the bill as prepared by these gentlemen, an inspection is made by a qualified government officer, at government expense, and the resulting certificate, if stock is found free from disease, takes the goods anywhere in the United States, without farther question.

"We have assurances from Canada that the proposed bill, if passed, will probably do away with the hostile legislation threatened. So much for the purely commercial side of the bill. The purpose of the act is to check and destroy the San Jose scale. The danger from this pest can scarcely be over-rated, and New Jersey, especially, should put no obstacle in the way of eradicating it, as to New Jersey sources have been traced nine-tenths of the infected premises. It will attack roses and presumably many kinds of plants commonly grown by florists. A careful consideration of this whole subject, I am sure, will lead Messrs. Henderson & Co. and others who think with them, to the conclusion that a state law based on the lines of the proposed act of congress, is about the only practical solution of a very perplexing subject. The gas treatment does not secure absolute protection, and stock that needed it would find slow sale in this section."

In Nursery Rows.

SELECTING GRAFTS.—Much stress is laid upon the importance of selecting the individual tree from which the grafts are taken. Professor H. E. Van Deman repeatedly urges that this care be taken with all varieties of fruit for nursery propagation.

APHIS-PROOF APPLES.—"As a hint to nurserymen, I would say that several very promising varieties of apples have been introduced by a New Zealand firm, which are really aphis-proof," says Leonard Coates, Napa, Cal. "I do not refer to the use of Northern Spy roots, but to actual seedlings. Some of these I have now in my orchard."

DEVELOPING A PEACH ORCHARD.—"To set trees, plow, harrow and mark off will cost probably \$6 to \$8 per acre," says N. H. Albaugh. To keep the land cultivated, about \$8. To gather, about 10 cents per bushel, including hauling to packing house, and about 5 cents per bushel to grade and pack. Of course the above is only an estimate. I have 600,000 peach trees in orchard in Georgia and Kentucky."

MICE AND RABBITS.—To prevent injury to trees by rabbits and mice, S. D. Willard, Geneva, N. Y., suggests banking with earth the outside rows of young orchard trees. Slices of sweet apples sprinkled with strichnine and hung upon the lower branches have been found effective. Edwin Hoyt, New Canaan, Conn., suggests the use of wire cloth with 10 to 12 wires to the inch and cut into strips 6 to 12 inches square.

RETARDING GROWTH.—At the state experiment station Columbia, Mo., Prof. J. C. Whitten has been making experiments in the direction of retarding growth of peach buds with a view to preventing their development too early in the spring when there is danger of freezing. As the result of a white-washing with lime mixed with water and skim-milk, in proportion of four-fifths of water and one-fifth of skim-milk, flowering was retarded four days.

PLUM STOCK.—Prof. H. E. Van Deman, Parksley, Va., writing to the *Rural New Yorker* says: "The best stock for the Japan and American plums is the Marianna. This is a variety of the foreign species, *Prunus cerasifolia*, and does not sprout from the roots. The plants for nursery purposes are propagated from rooted cuttings and not from seeds, as a general thing. Our native plums, especially the Americana, make thrifty stocks, but they sprout so badly as to be a great nuisance in the orchard, and are, therefore, unsuitable. The Marianna stocks are bought very cheaply from the southern nurseries, as they root much more easily in the South than in the North."

CHESTNUT CULTURE.—Grafting chestnut trees in their places in the woods, begun by the late H. M. Engle, Marietta, Pa., has not proved entirely successful. The original chestnut trees were cut down for firewood or timber, and the sprouts were permitted to grow from the stump; the following year, after cutting all but three or more sprouts from each stump, they were grafted in much the same way that fruit trees are grafted. The chestnut weevil has caused a loss of half or two-thirds of the nuts grown, and the cost of cleaning away underbrush each year has been large. It is believed that the planting of grafted trees or seedling trees to be grafted afterward, in ground that could be cultivated would prove more successful.

Recent Publications.

An exhaustive and valuable bulletin, illustrated, on the codling-moth, has been issued by Professor M. V. Slingerland of the Cornell University Agricultural Experiment Station, Ithaca, N. Y.

Luther Burbank, Santa Rosa, Cal., has issued his 1898 supplement to "New Creations in Fruits and Flowers." He has produced three new plums. Apple, America and Chalco; a new prune, Pearl; hybrid walnuts, Paradox and Royal; a new rose, Santa Rosa; and a new calla, Fragrance.

In a forthcoming revision of the American Pomological Society's catalogue, published by the U. S. Department of Agriculture it is anticipated that fruit growers of California, Oregon, Washington, Arizona, New Mexico, Idaho and Colorado will send reports so that those states may receive the ratings to which they are entitled.

In number three of volume IX of the "Experiment Station Record" the value of scientific investigation in progress in Russia is discussed and the aims and tendencies of the German agricultural experiment stations are set forth. C. S. Crandall, horticulturist of the Colorado station reports upon tests of fruits. Bulletins by Professors Alwood, of Virginia, and Webster, of Ohio, on the San Jose scale are condensed.

In No. 5, of Vol. IX. of Experiment Station Record the commission appointed to investigate the horticultural possibilities of Alaska reports: "Alaska is pre-eminently a berry country. Wild strawberries, currants, raspberries, salmon berries, blueberries, huckleberries, and cranberries abound, and in addition there are numerous others of more local distribution. But little attempt has been made to domesticate any of them, although some strawberries, raspberries, and currants were seen in a few gardens. A few plum trees have been planted, but they have not yet produced fruit. No attempt seems to have been made to graft any of the more hardy apples upon the native wild crab, although the latter is abundant throughout southeastern Alaska."

The thirty-ninth volume of the "Horticultural Directory and Year Book," that for 1898, has been issued. This is an English publication of much interest and value. As a reference book for nurserymen it will be found of use many times. It contains lists of the principal nurserymen, seedsmen and florists on the continent, in America and the British colonies; alphabetical list of the nurserymen, seedsmen and florists in England, Wales, Scotland, Ireland and the channel islands; alphabetical lists of the seats of the nobility in Great Britain and Ireland; horticultural and botanical societies and botanical gardens and public parks in the British Empire, besides a large amount of other useful information. Paper, 528 pp. 25 cents. London: JOURNAL OF HORTICULTURE, 12 Mitre Court Chambers, Fleet street.

The first report of the Park and Outdoor Art Association has been issued. The association was formed at a meeting in Louisville, Ky., May 20, 1879, with these officers: President, John B. Castleman, Louisville; vice-president, L. E. Holden, Cleveland; secretary and treasurer, Warren H. Manning, Boston. The association seeks to promote the practice of out-door art. President Castleman stated that in 33 cities of the country having a population of 13,500,000 people, the parks now represent an investment of \$183,000,000. The report of the proceedings of the first meeting includes papers on landscape improvement by John C. Olmsted, Brookline, Mass.; Warren H. Manning, Boston, and others. The association starts out with a membership of 107, including some of the most prominent park officials, landscape architects and arboriculturists in the country. The association will meet in Minneapolis, June 22, 1898.

HARRY L. BOYD, CHESTERTOWN, MD., FEB. 14, 1898.—"Please find enclosed postal order for renewal of my subscription for 1898. You are due much credit for the excellent paper you spread before your patrons twelve times a year."

ORANGE COUNTY NURSERIES, T. J. DWYER & SON, CORNWALL, N. Y., FEB. 5, 1898.—"Please find herewith \$1.00 subscription for the NATIONAL NURSERYMAN. We have our share of curiosity and want to know as far as possible what is going on among the fraternity. Have found your journal just the publication for this purpose. It is neat, newsy and best of all, brief. We read it with much pleasure."

L. C. Bobbink, Rutherford, N. J., called on Rochester nurserymen last month.

Shipping tags and envelopes can be obtained at low prices of Bevan, Husted & Co., 77 Bedford St., Boston.

The name of Professor F. M. Webster, state entomologist of Ohio was inadvertently omitted in the mention of those who met in Washington, D. C., to agree upon a federal scale bill. Professor Webster was secretary of the committee having the matter in charge.

Situation as Foreman in Nursery

WANTED—Have had twenty years experience in growing both fruits and ornamentals, and for the last ten years have had charge of large nursery. East preferred. Best reference.

Address, "FOREMAN," care NATIONAL NURSERYMAN.

It will pay **YOU** to get our Prices
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BEVAN, HUSTED & CO.,
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JOHN CHARLTON & SONS,
University Avenue Nurseries,

ROCHESTER, N. Y.

GROWERS of all kinds of Fruit and Ornamental Trees.
Small Fruits and Grape Vines of all kinds.

**CLEMATIS in Variety; all Strong Out-Door
Grown Plants.**

Ornamental and Flowering Shubs.

ROSES of all Kinds.

All of our plants are of the best quality, and as true to name as it is possible to grow them.

We have been Mr. Thompson's general agents for the sale of Columbian Raspberry Plants from the start, and offer for spring sales as follows:

60,000 Columbian, Strong Transplants.

148,000 Columbian, Strong Tips.

At the lowest price yet offered.

JOHN CHARLTON & SONS, Rochester, N. Y.

I have a Large Quantity
of One, Two and
Three Year

FAY'S CURRANTS

To Offer at REDUCED RATES; also Hydrangea, P. G.

Write for prices, stating quantity wanted, **F. H. BURDETT, CLIFTON, MONROE CO., N. Y.**

When writing mention The National Nurseryman.

A circular map with a compass rose in the center. The outer ring contains the text "SPALDING NURSERY & ORCHARD CO. SPAULDING, ILL." at the top and "GROWERS OF TREES, PLANTS, ETC." at the bottom. Inside the ring, "DIRECT ROUTES" is written at the top. The map shows several locations and connecting lines representing routes. Locations include: SPALDING, ILL. (top right); GROUNDS OF SPAULDING NURSERY (top right, with a building icon); RIVERTON (top right, below the grounds); WABASH R.R. (top right, below Riverton); CHICAGO (bottom left); ST. LOUIS (bottom left, above Chicago); ST. PAUL (bottom left, above St. Louis); SPRINGFIELD, ILLINOIS (middle left); WABASH R.R. (middle left, below Springfield); OHIO R.R. (middle left, below Wabash R.R.); SPANGANON (middle left, above Springfield); SANGAMON RIVER (middle left, above Spanganon); BATTLESORE & OHIO R.R. (bottom right); and CHICAGO & ALTON R.R. (bottom right). In the center, "600 ACRES" and "EST. 1857." are written.

When writing to advertisers mention the National Nurseryman.

J. M. SAMUELS, Mississippi Valley Nurseries, Clinton, Kentucky, has for sale 500,000 Apple, any size, my selection of variety; 300,000 Peach; 100,000 Pear, 50,000 Plum. Other nursery stock in proportion. No San Jose scale or other insect pest. Write for prices.

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Office N. W. Cor. 11th and Walnut Sts., - Kansas City, Mo.

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Apple and Peach, new and leading varieties by the car lots.
Russian and American Apricots and native Plums by car lots.
Pears, Cherries and a general assortment of Small Fruits and Ornamentals.
We are not surpassed by any Nursery in the west, in number of acres or quality of stock. We have the only practical box-clamp in use. Price reduced.

CHOICE STRAWBERRIES. FRESH DUG PLANTS.

Nick Ohmer, Margaret, Seaford, Ruby, Carrie, etc. 400,000 Clyde, 130,000 Glen Mary, 400,000 Marshall. Write for estimate on large lots. 100 varieties. Catalogue sent free.

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FOR SALE CHEAP! Large Stock, Fine 2 year from bearing bushes. Address _____ Orange Quince. Grafted

OTWELL'S NURSERY, Carlinville, Illinois.

Berry Plants of all Kinds.

Best Plants. Bottom Prices. Catalogue Free.
Lucretia Dewberry, at Specially Low Prices to the Trade.

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GRAPE ALL OLD AND NEW VARIETIES.

Immense Stock, Warranted True. QUALITY UNSURPASSED. Prices lower than ever before. Send list of wants for prices.

STRAWBERRIES, CURRANTS, GOOSEBERRIES, AND OTHER SMALL FRUIT PLANTS.

T. S. HUBBARD CO., FREDONIA, N. Y.

VINES

The Sparta Nurseries have to offer their Usual stock of dry baled Moss, both builap and wired bales, and of the finest quality on the market. Also a full line of small fruit plants, high bush Cranberry, Juneberry and Huckleberry included. Ask for prices and terms.

Z. K. JEWETT & CO., Sparta, Wis.

IMPORTATIONS

From France, Holland and Japan now in cellar, and stock ready for Immediate Shipment.

ASSORTMENT VERY COMPLETE. ASK FOR SAMPLES AND PRICES.

HIRAM T. JONES,

Union County Nurseries, ELIZABETH, N. J.

Ornamental LARGE TREES SMALL

FLOWERING SHRUBS in great variety. Descriptive Catalogue and Price-List free.

SAMUEL C. MOON, Morrisville, Bucks County, Pa.

THE KLONDIKE . . .

still continues to be a subject of interest. Of no less importance to Nurserymen is their supply of labels for the coming season. Order early and avoid the rush. Samples and prices on application to

BENJAMIN CHASE,

15 Mill Street, Derry, N. H.



NUT AND FRUIT TREES

Of all Desirable Varieties.

IMMENSE STOCK. 300 ACRES. 60 YEARS.

BOOK ON NUT CULTURE, 157 PAGES, 60 ILLUSTRATIONS, telling how to propagate, market and cook them. PRICE \$1.00, or free with an order of Nut Trees for \$5. Catalogue Free.

PARRY'S POMONA NURSERIES, PARRY, N. J.

SHENANDOAH NURSERY,

HEADQUARTERS FOR

APPLE SEEDLINGS

Largest stock in the West.

PEAR, PLUM AND CHERRY STOCKS.

Osage Orange, Russian Mulberry and Forest SEEDLINGS.

Nursery grown.

Apple, Pear, Plum, Peach and Cherry Trees by the car load.

Acres of Shade and Ornamental Trees of all sizes.

Small Fruits, Ornamental Shrubs and Evergreens

in quantity to suit the purchaser.

Scions, large surplus.

Grafts of any style made to order.

Our stock has made a fine growth, and is free from all injurious insects, and includes all the leading varieties and will be graded up to the highest standard grades. WRITE FOR PRICES.

D. S. LAKE, PROPRIETOR,

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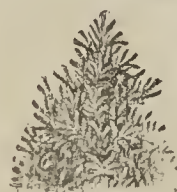


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OUR SPECIALTIES **PEACH AND PLUM.**

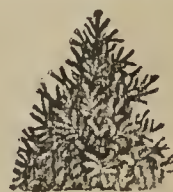
JAPAN WALNUT, SHADE TREES, CAL. PRIVET and SHRUBBERY.

STOCK GOOD AND PRICES RIGHT.



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Quality Superior.

Prices the Lowest.

Fine colored trees of the Colorado Spruces and Concolors; both seedlings and transplanted. 300,000 transplanted Hemlocks. Over 1,000,000 seedlings. 100 acres, leading, standard, hardy sorts. Any quantity of Arbor-vitæ and Spruces.

D. HILL, Evergreen Specialist,

Correspondence Solicited. **DUNDEE, ILL.**

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We offer an extra heavy XXX white laid business envelope with printed corner card, in lots of 25,000 at only 75 cts. per 1000. Others cheaper.

Paraffine paper 24x36 inches, wax coated both sides of sheet at 6c. per pound.

Send samples of what you use, before buying. We will quote you low prices.

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We Offer for Spring:

Japan Pear Seedlings, 1 year.
20,000 $\frac{1}{4}$ up. Extra fine.
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100,000 Peach Trees.

100,000 Peach Seedlings from Natural Pits.
Natural Peach Pits.

A general line of Nursery Stock.

Wanted—Apple Seedlings in Exchange.

W. T. HOOD & CO., - - RICHMOND, Va.

PEACH TREES,

AND THE FOLLOWING SPECIALTIES:

APPLE and CHESTNUT TREES, LILACS, NORWAY and
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OSAGE ORANGE, ASPARAGUS, JAPAN SNOWBALL,
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THE SEDGWICK NURSERY CO.

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CLEMATIS in Variety; all Strong Out-Door
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ROSES of all Kinds.

All of our plants are of the best quality, and as
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SPECIALTIES for '97-'98.

POMONA CURRANT, 1 and 2 yrs., No. 1. 50,000 POMONA CURRANT cuttings.
LOUDON RASPBERRIES, suckers and transplants.
MUNGER, the new, large BLACK CAP RASPBERRY.
OHMER and ELDORADO BLACKBERRIES.
Ornamental Trees and Shrubs. Peonias, Hardy Herbaceous Plants, &c.
INSPECTION OF STOCK DESIRED.

E. Y. TEAS, - IRVINGTON, IND, (near Indianapolis).

About a Carload of —————

* PEACH TREES

Yet unsold, and the best offer will get them if sent at once. All lead-
ing and standard sorts, with big percentage of Elberta. Also an
immense stock of Strawberry, Miller Raspberry, and Logan Berry
Plants, at very low rates. If interested write now.

CHAS. WRIGHT, Seaford, Del.

Spring, 1898.

PEACH TREES.

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We will deliver PEACH in earload lots to leading points in Pennsylvania, New York, New England, Michigan and Illinois free.
Good assortment of leading varieties. Warranted free from disease or scale. Good grades, low prices. Send list of wants for estimates.

J. G. PATTERSON & SONS, - - Stewartstown, Pa.

Apple,
Peach,
Standard Pears,
Plum,
Apricots,
Grapes,
Shade Trees,
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Shrubs,

HEADQUARTERS FOR NURSERY STOCK.

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50 YEARS. Tennessee Natural Peach Pits and selected Smock. 1000 ACRES.

LOW PRICES ON PEACH TREES FOR EARLY ORDERS.

Strawberries,
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SPAETH NURSERIES, LARGEST IN EUROPE, RIXDORF-BERLIN.

The National Nurseryman.

FOR GROWERS AND DEALERS IN NURSERY STOCK.

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VOL. VI.

ROCHESTER, N. Y., APRIL, 1898.

No. 3.

CANADIAN RESTRICTIONS.

Drastic Measure Summarily Adopted at Ottawa—All Nursery Stock from the United States Barred from the Dominion—Two Commoners Make Vigorous Opposition.

On March 16, the Canadian House of Commons adopted a bill excluding all nursery stock from the United States from entry into Canada, for the stated reason that the spread of San Jose scale was feared. Minister of Agriculture Sidney A. Fisher said he had been importuned by fruit growers for a year to present such a bill. He asked that it be passed at once.

"My honorable friends" said he, addressing the House of Commons, "can understand that once it is known in this country that a bill of this kind is likely to pass through the Parliament of Canada, immediately a large number of those nurserymen in the United States who have been in the habit of sending large quantities of nursery stock into Canada will ship their goods into this country, so that they may be able to evade the provisions of this bill, and if it were delayed for two or three weeks, as it would likely be if it were subject to the ordinary course of procedure in the House, the object of the bill would be defeated, because at present or within the next two or three weeks is the time when the importations of nursery stock from the United States would take place; and if it were known to the nurserymen of the United States that the Canadian Parliament was considering such a bill as this they would immediately shove their stock into Canada as quickly as possible. They would be able to send in carload after carload, and we might feel assured that in that stock there would be a large quantity of this scale insect introduced into this country. The only way in which, so far as I can see, we may be able to prevent that procedure is to pass this bill as quickly as possible."

Mr. Sproule—"Why did you not introduce the bill a month ago if there was that urgency, before there was any importation of stock?"

The Minister of Agriculture—"If I had introduced the bill a month ago the same thing would have occurred then that I am pointing out as likely to occur now. The nurserymen would have been rushing in their stock just the same, the moment it became known that Parliament was considering the advisability of passing a bill of this nature."

Mr. Charlton opposed the bill vigorously, saying that it was of a very drastic nature. The sources from which most of their nursery stock is taken, in the neighborhood of Rochester, were, he said, singularly free from the pest. A total prohibition of the importation of nursery stock would be an injustice to those in Canada who desired to secure new stock. He did not believe that the measure was one that was called for in the public interest. Some measure was undoubtedly necessary, but he did not think that absolute non-intercourse was called for. If the bill was passed its necessary consequence would be the

prohibition of the importation of fruit. He thought that Mr. Fisher had been misled by parties anxious to control the supply of stock for the Canadian market. He suggested the possibility of retaliatory action on the part of the United States government.

Sir Charles Tupper insisted that drastic measures must be used or the object aimed at would not be secured. The Minister of Agriculture had, Sir Charles stated, convinced him that action was necessary. The bill should be passed immediately so as not to defeat its object. While it might be true that there were portions of the United States which were free from the pest, still, as Mr. Fisher had pointed out, it was so difficult to detect the disease that discrimination was impossible. Sir Charles expressed the hope that Mr. Charlton would not impede the passage of the bill.

Sir Wilfrid Laurier denied that this was a measure of hostility to the United States.

Mr. McCleary criticised Mr. Charlton for his anti-Canadian attitude, and said the bill should be passed regardless of the interests of United States nurserymen.

Mr. Ellis, of St. John, opposed the bill. The rules were then suspended and the bill was passed through its various stages.

On the following day the senate passed the bill with a rush and on March 18, the governor-general, Lord Aberdeen, gave royal assent to the bill and the new law went into effect on March 19, four days from the date of its presentation to the lower house.

TEXT OF THE BILL.

Following is the full text of the bill:

AN ACT to protect Canada against the introduction of the insect pest known as the San Jose scale.

Her majesty, by and with the advice and consent of the senate and house of commons of Canada, enacts as follows:

1. This act may be cited as the San Jose Scale act.
2. The importation of any trees, shrubs, plants, vines, grafts, cuttings or buds, commonly called nursery stock, from any country or place to which this act applies is prohibited.
3. Any nursery stock so imported shall be forfeited to the crown and may be destroyed, and any person importing nursery stock from any such country or place, or causing or permitting it to be so imported, shall be deemed to be guilty of an offense under section 6 of the customs tariff, 1897, and shall be liable to the penalty prescribed by that section.
4. The governor in council may from time to time declare that this act applies to any country or place as to which it has been made to appear that San Jose scale exists therein; and, when satisfied that the importation of nursery stock from any country or place to which this act has been applied may safely be permitted, he may in like manner declare that this act no longer applies to such country or place.
5. The governor in council, upon its being made to appear to his satisfaction that any class of plants is not liable to the attack of San Jose scale, may exempt plants of such class, and grafts, cuttings or buds thereof from the operation of this act.
6. The governor in council, may from time to time, notwithstanding anything contained in this act, permit the importation from any

country or place to which this act applies of such nursery stock as is required for scientific purposes.

7. All orders in council made under sections 4 and 5 of this act shall be published in the *Canada Gazette*.

An order-in-council issued under this bill prohibits the importation of nursery stock from the United States, Japan, Australia and the Hawaiian Islands.

The following stock is exempted from exclusion: Greenhouse plants, with the exception of roses; herbaceous perennials, herbaceous bedding plants, all conifers, bulbs and tubers.

Western New York ships from \$400,000 to \$500,000 worth of nursery stock to Canada every season.

ALARMISTS MAY DO HARM.

Inquiries go far in showing that at least some of the San Jose scale alarmists keep putting themselves in print with the view of securing a fat job as inspector or commissioner, and the question is now frequently asked "will these fellows scare away other foreign markets besides Germany?" Our information shows that where the San Jose scale has longest been it is on the decrease, and in some sections that were infested twenty years ago the scale has nearly, if not quite, disappeared. Many attribute this disappearance to natural death, some to its parasite, some to spraying.

Inquiries made of authorities in California, informs the writer that in that state it is easier and less expensive to combat the scale than the codling moth or fungous diseases, and that one thorough spraying destroys this pest, that they do not have to burn trees infested with San Jose scale, and further,—that it is receiving less attention than some of the pests we have east of the Rockies. Professor Slingerland of Ithaca, N. Y., says: "I believe that those fruit growers who now successfully combat the canker worm, pear psylla and curculio will be equally as successful in dealing with this pest."

No one advocates neglect. But the alarmist will do more damage than the San Jose scale. If the papers keep on giving nothing but the alarmists' side, other foreigners will get panicky and do as did Germany. But above is given simply the result of inquiries made of those where the San Jose scale has longest been.

Spaulding, Ill.

IRVING SPAULDING.

ENGLAND MAY ACT.

In the course of an article on the San Jose scale and the action of German authorities in excluding American fruit the *Gardeners' Magazine*, London, Eng., says:

This, briefly stated, is the pest with which the fruit-growing industry of this country is threatened, and yet nothing has been done by government, by agricultural or horticultural societies, or by fruit growers or nurserymen, to obtain protection from what is admittedly a terrible scourge. American apples and pears are allowed to be imported into this country in immense quantities without regard as to whether they are infested with the scale or not. Tens of thousands of pounds are annually devoted to the maintenance of horticultural and agricultural societies in the United Kingdom, and yet no one has, so far as we are aware, lifted a finger, figuratively speaking, to protect those engaged in the production of fruit and fruit trees from so formidable a foe. We submit that it will be wiser to prohibit the importations of American fruit than to incur the risk of ruining what is now becoming a great and profitable industry.

IDAHO HORTICULTURE.

O. F. Smith, of the Blackfoot Nurseries, Blackfoot, Idaho, is horticultural inspector of his state. In his district, five counties, there are 1485 acres in orchards. He says that during the last year there has been a considerable increase in fruit planting in Idaho.

The codling moth and the San Jose scale are the most troublesome pests in that state. Inspector R. M. Grimm, of Caldwell, says: "Several orchardists in my district practically wiped out the scale last season with one thorough spraying with the lime, sulphur and salt solution."

In Nursery Rows.

JAPAN PEAR SEED.—To germinate imported Japan pear seed fill shallow boxes with sand, mixing with it a little charcoal; in this plant the seed and let it freeze for two or three weeks, then plant in the open. Where there is much of it to be planted, plant in the open ground and let it freeze there. Where the first named plan is adopted, which would be for spring planting, the sowing in boxes should be deferred till say February or March.

GAS FOR SCALE.—Place stock in an air-tight box inverted and banked with earth. The chemicals necessary are fused cyanide of potassium (98 per cent. pure) and commercial sulphuric acid. For each 150 cubic feet of space in the fumigating box, use two ounces of the potassium cyanide, three fluid ounces of sulphuric acid, and eight ounces of water, for dormant plants; plants in full foliage may not stand so strong a dose of the gas.

WHALE-OIL SOAP FOR SCALE.—Prepare a bath in a galvanized or wooden tank, 8 x 2½ feet, using the soap at the rate of two pounds in a gallon of water; about 60 or 70 gallons of the solution. It may be necessary to warm the solution occasionally to prevent its partially solidifying, like soft soap; the best brands of the soap will often remain liquid, even when used at the strength recommended. Leave stock in solution a moment or until it is thoroughly wet.

WIER'S CUT-LEAF MAPLE.—"We have raised these trees by the thousand for a good many years and we have never seen a single failure attributable to working on dasycarpum stock," say W. & T. Smith Co., Geneva, N. Y. "The only failures we ever noticed in the Wier's was caused by a trouble, quite rare, but in common with the silver maples, viz., sometimes when young trees are forced into excessive growth, high winds will give a twist to the trees and loosen the bark on the trunk at a time when the bark peels easily, but this only occurs when we have wet seasons."

MAZZARD CHERRY STOCK.—"In the states or parts of states where the Heart or Bigarreau cherries do well, which are either in the middle Atlantic regions or on the Pacific slope, the Mazzard stock is very suitable," says Professor Van Deman. "But beware of it on the western prairies. I have tried it in Kansas, and there it was a failure, and the further north we go the more tender it is. Perhaps the nursery agent may believe that Mazzard cherry stocks are the best for South Dakota, but I do not. They are more tender than Mahaleb stocks. That state has a trying climate for any kind of cherry trees, and for cherry stocks as well."

QUEBEC FRUIT GROWERS.

Urged By Entomologist Fletcher to Take Precautions Against the Scale—Eighty Per Cent. of Canadian Trees are Purchased of United States Nurserymen.

In connection with the restrictions imposed by the Canadian Government, it is of interest to note that at the fifth annual meeting of the Pomological and Fruit Growing Society of the Province of Quebec, Dr. Fletcher, botanist and entomologist of the experimental farms, said that he regretted to announce that the San Jose scale had appeared in a few places in the peach belt of Ontario and in British Columbia. The Ontario government had legislated that all trees affected with it should be destroyed, and one-third their value paid by the government.

"There is at the present time," said Dr. Fletcher, "urgent demand being made on the Dominion minister of agriculture to legislate for the total prohibition of all nursery stock being imported from the states into Canada. I have not seen my way to recommend this, so serious is it to interfere with the established channels of trade. The minister of agriculture wishes an expression of opinion from this society with regard to the advisability of passing the law demanded. I shall not say that the San Jose scale will not enter the Province of Quebec. I did not think it would go into Ontario, but it has. I warn you to take all precautions against it. I advise you to get your nursery stock in Canada, for the northern states are infested with the most dangerous pest ever known. It is not worth your while to take the risk of buying stock in the United States, when you can get it equally good or better in Canada. I cannot tell you whether the Canadian government will pass legislation on the matter, but you can commence by protecting yourselves. We tried not to create unnecessary alarm, but matters have become so serious that Canadians must be warned against it."

Dr. Fletcher said it would be deplorable if the scale attacked and spread among Canadian forest trees. Rev. Mr. Hamilton advocated stringent laws keeping out all United States plants and trees. Canadians did not need one of them. The United States were fond of putting up Chinese walls against Canada, and Canadians should retaliate for their own protection. Dr. Fletcher said that eighty per cent. of Canadian trees were imported from the United States. Mr. Fisk said that the birds carried the scale from the United States to Canada, and that Canadians could not legislate to keep them out. Dr. Fletcher said every American plant imported was now reported from the custom house to the minister of agriculture and traced to its destination and the consignee warned to be on his guard.

DR. SMITH ON LEGISLATION.

At a meeting of the New York Florists' club on March 14th, Dr. John B. Smith of the New Jersey Experiment Station, speaking of the amendment that had been made to the New Jersey scale law, said that he was of opinion that a specific exemption of florists' stocks in the bill would do no harm, although he did not see the use of putting florists' plants or plants of that general character under the ban of the act. The question of inserting the exemption provision in the national law pending in congress was quite a different one; because

although florists' stocks could only be grown in the latitude of New York under glass, the same plants could be grown outdoors in the southern and southwestern states, and there was a possibility of insects, from indoor grown stock shipped into these localities, spreading on the outdoor plants. If the danger is to be guarded against, that stock ought to be included in the federal law as well as nursery stock, said he.

"That this insect is a destructive one if left to itself, is beyond question, and that we have not yet found the best method of dealing with it may also be admitted," said Dr. Smith. "I am firmly convinced, however, that legislation is not that best method, for laws do not enforce themselves, and if the energy displayed in securing legislation were devoted to experiments in the orchard, the result might be different. We know the life history of the insect now, thoroughly; we know that we can kill it if we are persistent, and as compared with some plant diseases it is almost harmless. In the very worst infested district in New Jersey the fire blight killed more trees last year than the scale has done in the ten years that it has been with us. In one of the best peach orchards in New Jersey the scale has been present ever since it was put out. None but careful horticultural treatment was given until the present winter and of more than 1,000 trees, not one has been in the least harmed by the scale. Plant disease cut off 10 per cent. of the orchard last year, and 20 per cent. of some varieties. Why not legislate against that?"

"Legislation has a place undoubtedly in our battle with insect foes, but it is rather to give us a weapon than to act itself. There are always some men who are behind the times or who are congenitally unable to comprehend that anyone has rights that they are bound to respect. Such men occur among the farmers as well as elsewhere, and in some cases they maintain a veritable nuisance on their grounds in the form of insect infested plants from which adjoining lands become infested; such men should be compelled to look after their property to the extent of saving their neighbors, and legislation can help us to that point and no further. Of course, inspection of nurseries is a good thing in so far as it informs the nurseryman of the condition of his own affairs and he can make it, if he chooses, the basis of a guarantee to purchasers that his stock is clean. This will be of some tangible benefit to the purchaser if he is careful to deal with responsible firms, but as it is now, a certificate is a protection to a dishonest dealer since it gives him something to hide behind should his stock prove, later, to be either diseased or infested by insects."

CONDITIONS IN SOUTHWEST.

Editor NATIONAL NURSERYMAN:

The winter has been very mild indeed. Spring has apparently been open for some time. Oriental pear tree leaves nearly grown. Everything is growing. Our trade has been some better this spring than usual. We had to ship some stock quite late, and sap was up to some extent. Our agents are sending in pretty good weekly reports for fall delivery, indicating that planting here in the Southwest is going to be better than for the last two very dry years. McKinley prosperity is a long time reaching these parts. Will it come? Ho for Omaha!

L. T. SANDERS & SON.

Plain Dealing, La.

GENUINE NOVELTIES.

Practical Results of Efforts of Secretary of Agriculture to Secure New Varieties of Trees and Plants—Professor Hansen's Work in Russia—A Valuable List of Specialties.

In January this journal called attention to the commendable efforts of Secretary Wilson of the U. S. Department of Agriculture in proposing to expend not less than \$20,000 of the seed appropriation in the sending of agents abroad to procure new varieties of trees, plants and seeds to be distributed among the experiment stations of this country for testing.

The first result of these efforts is at hand. N. E. Hansen, professor of horticulture at the Brookings, S. D., experiment station, commissioned by Secretary Wilson to visit Russia in search of new varieties, has returned, and herewith is appended a summary of what he obtained:

The musk-melons of Russian Turkestan, Bokhara, Khiva and Trans-Caucasia were deemed worthy of introduction. Many of the varieties run from twenty-five to thirty-five pounds in weight, oval in shape, flesh snow-white, melting and superior in quality to any American variety. Some varieties keep all winter and form one of the principal articles of food of the native sorts. Seed of a large number of varieties was saved from melons bought on the spot.

A large number of pits of the choicest varieties of the Vladimir race of cherries of East Russia was obtained from carefully selected fruit. These come practically true to seed, bear fruit of large size and excellent quality, and endure 40 degrees below zero Fahrenheit. These trees, however, are a distinct race of cherry, and must be grown from seed or sprouts in the true Russian fashion, as they are short-lived and tender when grafted or budded on the common commercial Mazzard and Mahaleb stocks of the nursery.

One thousand plants, the entire obtainable stock, was secured of a new species of raspberry of semi-recumbent habit recently discovered by explorers in the mountains of extreme Northern China. The fruit is orange in color, of large size and of peculiar but very pleasant flavor. The plant has proven hardy at St. Petersburg. This is a new departure in raspberries and is worthy of general trial.

Scions of some new hybrids of the hardiest variety of the small-fruited Siberian crab with the hardiest Russian apple, originated by a Russian experimenter by artificial cross-fertilization. These will be valuable for trial in our Northwest, far north of the present limits of apple culture.

The Russian method of absolutely preventing the root-killing of apple trees on hardy stocks was carefully studied, and seeds obtained for trial. This method will no doubt prove a great boon to a large part of our northwestern prairie states where root-killing is the main obstacle to successful apple tree culture.

From Turkestan, West China and Trans-Caucasia native varieties of apricot, plum, peach, cherry, apple, pear, quince, grape, oleaster and other fruits, and a collection of vegetables were obtained.

A collection of new ornamental trees, shrubs and plants from Siberia, Turkestan and the Caucasus.

Seeds of plants used in Russian forestry experiments to bind the sand dunes or moving sands of the deserts of Southeast Russia and Turkestan.

Small lots of a number of new legumes, cereals, grasses, trees, fruits, shrubs and ornamental plants, etc., recently discovered by Russian scientific expeditions.

COULD NOT DO WITHOUT IT.

BRYANT'S NURSERIES, PRINCETON, ILL., ARTHUR BRYANT & SON, JANUARY 14, 1898.—“We herewith enclose you check for \$1 for your paper during 1898. We could not well do without it.”

SMALL BROTHERS, NASHUA AND ROCHESTER, N. H., JAN. 14, 1898.—“Enclosed please find one dollar in payment of our renewal subscription for your journal. It has become a sort of necessity and we cannot afford to be without it.”

Foreign Notes.

George Paul, the well-known English nurseryman, one of the county councillors for the Cheshunt and Waltham Cross divisions, has been placed on the commission of peace for the county of Herts.

Ten tons of flowers were used in the Cannes, France, battle of the flowers this year. They were chiefly acacias, anemones, pinks, violets and wallflowers. Twenty-five thousand people lined the beautiful sea drive and viewed the decorated carriages.

The San Jose scale has made its appearance in Australia. Active measures are being taken for its extirpation and, under the vegetation diseases act, the owners of infested orchards are compelled to destroy the scale, and are prohibited from sending out cuttings or infected fruit.

Rt. Hon. Walter Hume Long, president of the Board of Agriculture of Great Britain, in answer to a question put in the House of Commons, said that the subject of San Jose scale was being investigated and that any assistance which could be given to fruit growers would be rendered when requisite.

The fourteenth international exposition of horticulture will take place at Ghent, Belgium, from April 16 to April 24, 1898. This exposition, every five years, is organized and managed by the Royal Society of Agriculture and Botany of Ghent. It is under the patronage of the king and queen of Belgium, and is subsidized by the national, provincial and municipal governments. It is the one hundred and sixty-third exposition of this local society.

It has been estimated by a correspondent of *Le Semaine Horticole*, that, under favorable conditions, the possible length of life of various trees grown in Europe is as follows: Judas-tree (*Cercis siliquastrum*), 300 years; elm (*Ulmus campestris*), 335; ivy (*Hedera helix*), 450; field maple (*Acer campestre*), 516; birch (*Betula alba*), 576; Orange (*Citrus aurantium*), 630; cypress (*Cupressus sempervirens*), 800; walnut (*Juglans regia*), 900; plane (*Platanus orientalis*), 1,000; linden (*Tilia europæa*), 1,100; Norway spruce (*Picea excelsa*), 1,200; oak (*Quercus Robur*), 1,500; cedar of Lebanon (*Cedrus Libani*), 2,000; Yew (*Taxus baccata*), 3,200, and southern or bald cypress (*Taxodium*), 3,000 years.

“The American blackberry (*Rubus villosus*) does not appear to be a great success in this country, even in favored districts, says a writer in *Gardeners' Magazine*, London. W. J. Stillman writes that if the plant would produce as good fruit in England as it does in America it would become an important addition to English fruits; but, having made the attempt to acclimatise it in the Isle of Wight, I do not believe it can succeed elsewhere in England, for there its fruit was in no way superior to the common bramble. Amongst the species of whortleberry found in America there are some which, if successfully acclimatized, would be of more importance than the American blackberry. One is a plant which is found in immense quantities in the great northern wilderness of New York, and, I suppose, Canada, growing from six inches to a foot high and bearing at the apex a cluster of berries, marked by a blue bloom (hence called blueberries), of delicate flavour.”

DEFENSE OF CERTIFICATES.

Professor William B. Alwood Argues That Inspection Is a Practical and Proper Means of Restricting the Spread of San Jose Scale—Wishes to Allay Alarm.

Professor William B. Alwood, entomologist of Virginia, in a reply to Dr. John B. Smith, entomologist of New Jersey, who has discouraged the passage of laws requiring San Jose scale certificates, says in *Rural New Yorker*:

"As a measure justifying his opposition to the giving of certificates by entomologists, he makes several statements that trees have been shipped into New Jersey infested with scale, yet carrying the certificate of an entomologist. This may well have occurred in a few instances, considering the fact that, wherever inspection has been attempted, the inspectors have been much over-worked, and have not had the means necessary to do the work in a proper manner. But to argue that, because some error or oversight or even some dishonest practices may occur under inspection, we are not to try to stop the dissimulation of this pest, seems to me simply to be begging the question.

"It is certainly demonstrable by the work done in this state (Virginia), and I believe, also, in other states, that the inspection has immensely decreased the amount of infested stock that has been handled from the nurseries, and that it has served to locate and, in many cases, restrict the spread from local infested areas, and in some cases, entirely eradicate the scale therein. After several years' experience in dealing with this question, I give it as my firm belief that our best hope of checking the spread of this obscure and pernicious pest lies in the most thorough inspection under competent, trained entomologists, and the destruction of all infested nursery stock, and, as a further measure, the restriction and eradication, so far as possible, of infested areas in the state outside of the nurseries. Because we have the scale, is it sound argument that we shall continue to disseminate it?

"My experience, after two years of work, is that no seriously infested nursery will ever be overlooked by an inspector having proper training. If this is then the case, and these thousands and, in some cases hundreds of thousands of trees can be withheld from dissemination in commerce, why is not inspection a practical and proper means of restricting the spread of this pest? For my part, I do not believe there is any real danger to foreign countries from the unrestricted entrance of our fruit, but it will not be so easy to convince them if we permit this scale to spread further. Until now, I have purposely avoided treating this matter in the newspapers, because I especially wished to allay and not create alarm; but as the time is past when a fair statement can do harm, I have thought it best to make this general statement and partial reply to those who have published so voluminously in the newspapers and agricultural press."

IS EARLY RICHMOND EXEMPT?

In a summary of a bulletin on San Jose scale by C. F. Baker, of the Alabama Agricultural College, the last issue of the Experiment Station Record says:

"It may be noted that the Early Richmond cherry seems to be exempt from the San Jose scale. Trees of this variety have

been growing with their branches interlocked with those of a pear that had been killed by the scale, and yet remain uninfested. Again two cases are noted where the Early Richmond variety was grafted upon Mahaleb stock. The shoots of the latter had sprung up below the graft and were badly infested, while no scales were to be found on the trees themselves."

The author states that the inspection of several nurseries in Alabama during the spring revealed the fact that this insect occurred but rarely or not at all on stock that was moved every three years and he advises such a movement of stock for the purpose of getting rid of the scale. The plan, it is stated on the authority of nurserymen consulted, is perfectly practicable.

CALIFORNIA GROWN ROSES.

The Jackson & Perkins Co. of Newark, N. Y., writing of their experiment in growing roses in California, say in *American Florist*:

"We have sent about 150,000 young roses to California to be grown, and they are thus far doing very nicely indeed. These were all propagated here, but as soon as we get matters in a little better shape we expect to have the propagating done entirely in California. We experimented with rose growing a little last year, sending 10,000 plants there. They came back to us with an amount of growth upon them that was perfectly surprising. La France, American Beauty and Mrs. John Laing, which are very slow growing sorts out doors here, and of which it is impossible to grow very strong plants even in two seasons, will, in California, make plants three feet or more in height in one season.

"We are also trying about 40,000 clematis, believing that we can produce some exceptionally fine strong plants there. We do not believe that the plan of growing roses in California from field rooted cuttings will ever be successful, as it is altogether too uncertain."

Obituary.

William Parry, of the firm of Parry Brothers, Parry, N. J., died last month of Bright's disease, aged 50 years.

William L. Gatewood, superintendent of Stark Brothers' nurseries, Louisiana, Mo., died February 23, aged 43 years.

John O'Callaghan, for thirty years foreman of the rose department of Ellwanger & Barry's nurseries, died at his home in Rochester March 22, aged 73 years. He entered the employment of that firm forty years ago. His knowledge of roses was regarded as of great value.

John Hannay, a veteran nurseryman and one of the pioneers of Santa Clara, Cal., died March 7, at West Side, San Jose. He had been identified with the development of the fruit industry of Santa Clara county for a quarter of a century. He was a native of Scotland and 64 years of age.

Samuel Edwards, one of the early nurserymen of Illinois, died at Mendota, January 24, aged 80 years. He was once a heavy grower of evergreens, and established the "Evergreens" in Dansville in 1854. He was president of the State Horticultural Society, and a well-known writer. With J. T. Little, about the year 1851, he was among the first to hold the office of secretary in the Northwestern Fruit Growers' Association.

Among Growers and Dealers.

Samuel C. Moon, Morrisville, Pa., offers *Berberis Thunbergii* at low prices.

The firm of Alexander & Hammon, Biggs, Cal., has dissolved partnership.

The New York scale bill has been passed by the senate. It will undoubtedly become a law.

Kieffer pears in carload lots can be had of Spaulding Nursery & Orchard Co., Spaulding, Ill.

Apple trees and Abundance and Willard plums are specialties with F. W. Watson & Co., Topeka, Kans.

The Cherokee Nursery Co., Waycross, Ga., has been dissolved. H. D. Reed is winding up the affairs of the concern.

Stark Brothers have secured for a nursery farm a tract of 500 acres just south of Louisiana, Mo., overlooking the Mississippi river.

"We are selling all we can furnish. Never had such brisk trade before, and prices are good," write F. W. Watson & Co., Topeka, Kan.

J. G. Harrison & Sons, Berlin, Md., claim to have shipped more peach trees than any other firm in the United States. They are shipping daily now.

The scale bill passed by the New Jersey legislature was discovered by the governor to be defective. A new bill is on its way through the legislature.

Evergreen trees are a specialty with Charles B. Hornor & Son, Mt. Holly, N. J., who also have 40,000 Norway maples, low or high branched, and other ornamental stock.

The Canadian Horticultural Society was formed in Toronto on February 10th. William Gammage, of London, Ont., is president; Hugh McLean, of St. Thomas, secretary.

The rotary neostyle is proving a labor saving device in nursery offices. A cut of this apparatus in another column illustrates how 2000 copies from the original writing or type-writing may be made.

William A. Peterson, who has the active management of the large business of P. S. Peterson & Son, Rose Hill Nursery, Chicago, has devoted his entire time to the business during the last thirteen years.

The *California Fruit Grower*, figuring conservatively, places the value of California's fruit yield for 1897, embracing fresh, canned and cured deciduous fruits, citrus fruits, raisins, prunes and grapes for wine, at \$27,550,000.

Ernest Walker, for twenty years a member of the firm of F. Walker & Co., nurserymen and florists, Louisville, Ky., has accepted the position of entomologist and assistant horticulturist at the Clemson College station, S. C.

Peter Barr, the originator of the firm of Barr & Sons, nurserymen and seedsmen, of Covent Garden, London, has resigned the conduct of his business to his sons and will travel in the United States, Australia and China.

The original Burbank plum tree on the grounds of Luther Burbank, Santa Rosa, Cal., though mutilated to the fullest extent each season to obtain buds and grafts, has not failed to produce a full crop every year. It is fourteen years old.

The San Jose scale is another "blessing in disguise" to fruit growers; all these troubles force us to give better care and attention to our nursery stock as well as to our bearing trees and plants, said J. H. Hale to the Connecticut Pomological Society.

Congressman Charles A. Barlow, of California, who introduced the federal scale bill, says: "I think it is the most important bill that will come before either branch of congress this session so far as fruit is concerned." He is sure it will become a law.

President C. L. Watrous, of the American Pomological Society, and U. S. Pomologist G. B. Brackett have appointed W. H. Ragan, ex-secretary of the Indiana Horticultural Society, chairman of the pomological society's catalogue revision committee.

Governor Black, of New York, desires to make a beginning in practical forestry by devoting 25,000 acres of the forest preserve to tree culture under the direction of the experiment officials at the Cornell University station. A legislative bill appropriates \$5,000.

T. C. Thurlow, West Newbury, Mass., who went to North Carolina a year ago for his health, is much improved. "Although very busy," he writes, "I have found time to read carefully the NATIONAL NURSERYMAN, which improves in interest and usefulness."

Dr. L. O. Howard, chief of the U. S. Division of Entomology, believes that the principal places of entry to be guarded from introduction of insects and plant diseases are: Boston, New York, Baltimore, St. Augustine, Charleston, Key West, Tampa and New Orleans.

The articles of incorporation of the Nebo, Utah, Nursery Company have been filed for record. The nursery will be located on the land lately brought into cultivation by the construction of the Nebo canal. Forty thousand young trees have been purchased by the company and will be replanted as soon as the weather permits.

Replying to a correspondent who asks how to cultivate nursery stock, Edwin Hoyt, New Canaan, Conn., says: T. J. is not posted in raising young trees, my advice to him is to let it alone. He can buy trees cheaper than they can be raised, and with the strong competition there is now in the nursery business, one not being well posted in the business may become stranded before he is aware of it."

The Manitoba Horticultural Society was formed at Winnipeg on February 18th, "for the purpose of advancing the interests of horticulture in the departments of flower growing, fruit growing, and tree growing throughout the region between Lake Superior and the Rocky Mountains. It aims at discovering the kinds of plants, and methods of cultivation most suited to the soil, the climate, and the peculiar circumstances of this country."

The division of pomology of the United States Department of Agriculture will investigate the fruit producing districts of Arizona, California, Nevada, Oregon, Washington and Idaho, will indicate the boundaries thereof as clearly as may be found practicable, and will note the pomological influence of latitude, slopes, soils, exposures and moisture conditions, as shown by the experience of fruit growers within the division of country included in this inquiry.

CANNOT EXTERMINATE.

Professor M. V. Slingerland says San Jose Scale has Come to Stay—Insect is Breeding on Wild Trees and Shrubs—There Should be a Recompense for the Trees Destroyed.

Professor M. V. Slingerland of Ithaca, N. Y., answering a query in the *Rural New Yorker*, says:

"There is now no possible chance of ever exterminating the San Jose scale here in the East, and the sooner fruit growers realize this fact the better. The insect has already escaped from orchards, and is breeding on wild trees and shrubs in several localities. We can never legislate it out of existence, and public opinion will rarely support mandatory or non-recompensing laws against it. Doubtless, much good may be accomplished by enactments providing for experts, not politicians, whose business it may be to visit and carefully inspect nurseries, at least once a year, and investigate every suspected case in orchards. But such inspectors should not be vested with power to destroy trees without partial recompense to the owners. A state could very properly empower such an inspector to aid the owner in every way to eradicate the scale, even at the state's expense in some cases; but we do not know enough about the insect and the best methods of combating it to warrant, in my belief, such mandatory measures as some states are attempting to enforce. Many orchardists are now successfully controlling the pest, and it will finally result in the 'survival-of-the-fittest' orchardist."

J. J. HARRISON.

The subject of this sketch, one of the best known nurserymen in the country, was born in the county of Kent, England, August 20, 1829. In the summer of 1831 his parents moved from Margate, England, to Painesville, Ohio, where he lived on a farm until of age. Besides attendance at a district school he attended two terms at Kirtland Seminary. When of age he struck out for himself, supposing his school days were finished, but he received an injury in his 23rd year that incapacitated him for labor. He spent a term at Hiram College and and then took a course in Bryant and Lusk's commercial school at Cleveland.

Mr. Harrison acquired a liking for the nursery business by engaging in the occupation of itinerant tree top grafting, working in New York, Canada, Georgia, Ohio, Louisiana and Arkansas. In 1858 he made a start in the nursery on his father's farm, on Mentor avenue, now occupied by the Avenue Nurseries conducted by Jaynes & Cole.

In 1860 he entered into partnership with Jesse Storrs under the firm name of Storrs & Harrison and removed to the present

location. After the close of the civil war the two surviving sons of Jesse Storrs, William G. and Willis P., were admitted to the partnership under the title of Storrs, Harrison & Company. The expansion of the business led them to incorporate in 1880 as The Storrs & Harrison Company, the present designation. It is a close corporation, all the stock being held by themselves. The capital stock is \$150,000; surplus \$47,000.

The office and grounds are two miles east of Painesville, on the North Ridge road. The officers of the company are: President, J. J. Harrison; vice-president and general manager, W. G. Storrs; treasurer and superintendent of greenhouses, Robert George; assistant general manager, W. P. Storrs; secretary, J. H. Dayton.

Mr. Harrison is a prominent member of the American Association of Nurserymen. He was a member of the executive committee in 1876 the year of organization. The following year he was first vice-president. He is at present a member of the important committee on tariff.



J. J. HARRISON.

ARKANSAS SEEDLINGS.

At the last meeting of the Arkansas State Horticultural Society a resolution condemning the renaming of Arkansas seedling apples and their sale by "foreign nurserymen under new names at extortionate prices" was adopted. J. T. Stinson, horticulturist of the Arkansas Experiment Station, Fayetteville, has issued a preliminary report in which the name Arkansaw is preferred to Mammoth Black Twig, and Paragon is listed as a separate variety. Other names claimed for Arkansas apple seedlings are: Arkansas Black, Arkansas Belle, Ashton, Beach (Lady Pippin, Apple of Commerce), Collins (Collins' Red, Champion Red, Champion, Coss' Champion), Etris (resembles Gano), Evans (Walker's Sweet), Givens, Heiges (Red Limbertwig), Highfill (seedling of Ben Davis), Holt's Seedling, Mock (Mock's Winter), Nebo, Oliver (Oliver's Red, Senator), Ozone (Martin's Red), Reagan (Black Ben Davis), Rutherford, Tunnell.

SCALE PARTIAL TO ROSACEÆ.

Professor T. D. A. Cockerell (Bul. 6, U. S. Dept. Agr., Division of Entomology) states that San Jose scale is partial to the Rosaceæ as illustrated by the following list of those plants upon which it has been found: Apple, crab apple, quince, pear, Bartlett pear, dwarf Duchess pear, plum, Japan plum, Satsuma plum, Prunus pissardi, P. maritima, peach, apricot, almond, cherry, Rocky Mountain dwarf cherry, currant, black currant, Citrus trifoliata, Osage orange, grape, elm, cottonwood, European linden, American chestnut, Pyrus japonica, Catalpa bignonioides, walnut, Japan walnut, loquat, red dogwood, junberry, rose, sumac, Photinia glauca and poplar.

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Annual convention for 1898—At Omaha, Neb., June 8, 9.

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ROCHESTER, N. Y., APRIL, 1898.

A COMMON SENSE VIEW.

The beginning of another packing season is at hand and nurserymen find conditions which are the natural result of progress in the face of difficulties—a situation which must continue to the end of time. Each season brings new phases. Last year there was a rift in the dark cloud of financial depression, and the good crops, the promises of better times on all sides and the clearing up of certain lines of nursery stock, followed by reports of better sales, dispersed most of the cloud. But another was forming in the shape of a San Jose scale alarm, and during the late summer months and the fall and winter, there have been varying changes in its appearance. This journal has presented those changes as they have taken place, as fully as possible, with a view of enabling its readers to keep in touch with the subject and thereby know how to act for their best interests. Being purely a trade journal and confined to the nurserymen, the publication of the many phases could not increase the alarm which it has been

feared would unfavorably affect the planters of nursery stock.

Horticultural and other journals have taken up the subject as the result of the investigations of entomologists, and it has been thoroughly discussed. And through it all the nurserymen, by their frank treatment of the subject, have increased confidence among the orchardists. The nurserymen have admitted from the outset the statements that the scale is dangerous to the life of trees and shrubs, and that it can be easily transmitted if proper precautions are not taken. They have urged federal and state legislation for the purpose of establishing those precautions, and have worked hand in hand with the entomologists in endeavoring to rid trees of the pest where it has been found.

It is gratifying to note the general tone of the horticultural press upon the attitude of the nurserymen. A fair sample of this feature of the question is the editorial expression of the *Rural New Yorker*, one of the leading agricultural and horticultural journals of the country. It says:

Two or three correspondents this week advise inquirers to buy nursery trees instead of raising them. Ordinarily we might consider such advice from a nurseryman as prejudiced; but under existing conditions, it seems to us sound. Never before were first-class fruit trees offered at such low prices. Many nurserymen say that they are making no money, and we can well believe it. But they have large sums of money invested, and must keep the plant in operation to maintain their business and get anything at all from it. If they, with their long experience, and with every facility for the economical production of trees on a large scale, cannot make any profit, how can the beginner with no experience and few or no facilities, expect to compete? The man of experience, too, is likely to produce a much better quality of trees. Growing good nursery stock is a science, and the specialist has every advantage in his favor.

The low prices of the past few years have been due to the immense production, and the unreasonable San Jose scale scare of the present and past years is liable to lessen purchases and depreciate prices still further. This scale is a serious pest—there is no use in belittling it—but fruit production will continue. When the Colorado beetle first made its appearance, many predicted that the business of potato growing would be ruined; but never before have so many potatoes been produced as during the past few years. We have learned to overcome the pest. So shall we learn to overcome the San Jose scale, and while some will probably be driven out of the business, the alert, progressive, up-to-date growers will reap the reward of diligence.

Fruit production will continue, and nurserymen will sell their stock in spite of obstacles. The San Jose scale will be fought as have other insects, and while it may not be exterminated, its spread will be controlled. Already the views of Dr. John B. Smith, Professor Mark V. Slingerland, Professor L. H. Bailey and others, that the scale may be overcome by due diligence, are being accepted generally.

CANADA'S EXCLUSION ACT.

In the face of the legislation which Sir Charles Tupper admitted was drastic, excluding all United States nursery stock from Canada, it is difficult for nurserymen in the states to believe that the San Jose scale was the sole cause for such action.

Hundreds of thousands of dollars' worth of stock was about to be shipped, to fill Canadian orders, from Western New York, where the scale has not yet been found. The Canadian minister of agriculture, who claims to have made a thorough study of conditions, must have known this. It would seem, therefore, that if such legislation as was proposed and effected in four days was deemed necessary, it could have been brought

about at a much earlier date and so have prevented the great loss now sustained by reputable men who were proceeding in a legitimate business with faith in the justice of governments.

If the San Jose scale was really the cause of the exclusion act, a fair method would have been to have supplemented the Ontario scale act, passed in January, with such other measures for inspection as might be deemed advisable and defer action on the exclusion bill until some date other than the packing season. As a natural result of the new law, Canadian nurseries should have the busiest season in their history.

THE FEDERAL BILL.

During last month another obstacle against the passage of the federal San Jose scale bill was presented. The opposition of the florists having been allayed, Alexander Craw, horticultural quarantine officer at California, raised a criticism of the bill. Regarding Section 1 Mr. Craw says:

So far as we know, there are not at present any available experts in Japan, Mexico or China, who could be trusted to recognize the evidences of infestation. The expression "dangerously injurious" should certainly not appear. It is not safe to leave it to the opinion of foreigners whether a pest is dangerously injurious or not. Suppose the foreigners to act in perfect good faith, they will often be in error for the reason that a minor pest in a foreign country often becomes a very serious pest in the United States. Thus the San Jose scale in its native country attracts no attention, and would be passed as a minor pest, not dangerous to horticulture.

"The law should be so worded as to exclude from interstate commerce all the produce of infested nurseries, whether visibly infested or not," says Professor T. D. A. Cockerell, entomologist of the New Mexico Experiment Station, who, in endorsing Mr. Craw's criticism, says:

It has been objected by some entomologists that the most careful inspector is not infallible, and that when an entomologist affixes his certificate to stock, he runs the risk of injuring his reputation, should the stock afterwards be found to be infested. This objection seems to the writer to have no weight, as the stock is only asserted to be "apparently" free, and the inspection given would at least detect bad cases of infestation and prevent the utter carelessness which has been so common in some quarters. The same objection might be urged against all expert testimony whatever, which, whether medical, legal or entomological, is but human, and therefore liable to be erroneous.

Professor Cockerell says also: "It is probable that no bill could be framed which would be satisfactory to all parties, and the present one is admittedly a compromise. Yet it is believed by its promoters to represent a real and substantial advance and therefore to deserve the support of all horticulturists."

This is exactly the position taken by President Irving Rouse of the American Association of Nurserymen, who, when Mr. Craw's criticism reached him, immediately sent a vigorous letter to Congressman Charles A. Barlow, of California, through whom the federal bill was introduced in congress, telling him that the bill had been prepared carefully and to the satisfaction of all interests, being endorsed by a California representative, and that the nurserymen had agreed to leave out of the question of interstate regulation the subject of fruits in deference to the wishes of those interested in California's chief industry. Congressman Barlow caused copies of President Rouse's letter to be sent to Mr. Craw and to prominent horticulturists throughout California.

W. R. GRAY, VIENNA NURSERIES, OAKTON, VA., JANUARY 15, 1898: "We enclose \$1 to renew subscription to the NATIONAL NURSERYMAN. We could not get along without your journal."

THE NURSERYMEN'S POSITION.

There is evidence that the position of the nurserymen on the subject of San Jose scale is not understood in some quarters. The last issue of the *Florists' Exchange* has the following comment:

In the discussion on the Canadian bill in the House of Commons, Sir Wilfred Laurier emphasized the fact that the measure "was purely one of protection, and not one of hostility toward the United States." According to the daily papers, some of our nurserymen are reported as thinking otherwise. It is, of course, rather unfortunate that their "chickens have come home to roost" thus early; but Canada's action is but the natural sequence of what has been admitted by many to be an unnecessary internecine warfare among our own states, in which hostilities an unarmed scale has been the supposed formidable enemy, and "certificatitis" the most powerful munition of the bug war.

The chairman of the legislative committee of the New York Florists' club took exception to our congratulatory remarks on the result of the discussion on section 8 of the federal scale bill, which, according to the statement of Dr. John B. Smith of New Jersey, before the New York Florists' club, ought not to have been appended to the bill.

And now comes the *California Fruit Grower*, published in the state that gave the Eastern United States the San Jose scale, with these remarks:

Not only do Alexander Craw, the horticultural quarantine officer at the port of San Francisco, and T. D. A. Cockerell, entomologist at the New Mexico agricultural experiment station, adversely criticize Congressman Barlow's measure regulating the importation of trees, shrubs and fruits, but the principal florists' and nurserymen's journals are up in arms against it, and, it would appear, with reason.

The principal florists' and nurserymen's journals are not up in arms against the bill. The bill as it stands to-day has been declared by the nurserymen and florists to be satisfactory, and so far as is known only two persons in the entire country criticize it; they are Messrs. Craw and Cockerell, of California and New Mexico. Congressman Barlow, who introduced the bill, has declared to all prominent California horticulturists and nurserymen that the bill is a good measure and should be passed.

Now, if there are any chickens that have come home to roost they belong to the horticulturists and entomologists, not to the nurserymen. Nurserymen did not start the agitation for a federal scale bill. They were drawn into it simply as a matter of protection to their interests, when a convention of horticulturists and entomologists met in Baltimore in March, 1897, and declared that a bill must be introduced in congress to regulate the transportation of nursery stock.

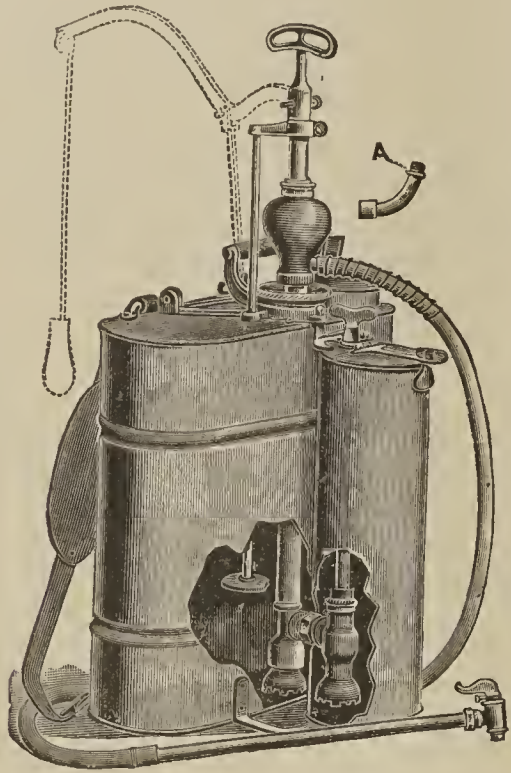
At St. Louis last June the nurserymen seeing that horticulturists and entomologists were determined to propose federal legislation, and believing that it was better to have a uniform law than a number of widely varying laws, as was the prospect in the states, joined with the entomologists and horticulturists in the support of the bill now before congress.

Our friends on the Pacific coast and among the florists should not hold to the idea that the San Jose scale bill or the San Jose scale alarm was originated by the nurserymen. It would be strange indeed if the nurserymen should originate a measure that would restrict the transportation of their stock, or that they would agitate an insect alarm. But if there must be legislation, they ask that it be in such form as not to ruin one of the principal branches of the fruit industry.

Nurserymen heartily endorse Dr. Smith's statement that the unwisdom of the scale "scare" is apparent. The alarm should be allayed. This journal has repeatedly called attention to the fact that such prominent entomologists as Dr. Smith, Professor Bailey and Professor Slingerland have declared that San Jose scale can be controlled and that other insects have been quite as threatening to fruit interests.

FRUIT PROFIT AND LOSS.

It is impossible to grow either codling moth, curculio, bud moth, canker worm, leaf blight, apple scab, or San Jose scale and fine, healthy fruit on the same tree. A remedy is to spray with some of the preparations that have been found very effective in the past. It is well known that kerosene emulsion is very effective in dealing with many tree diseases and insects, but it has heretofore been exceedingly difficult of manufacture and application. Last season the invention, a cut of which we show herewith, was perfected, after much experimenting, and was placed upon the market. In every case, we believe, it was found to be just the thing needed for



the purpose. This is the Weed kerosene sprayer of the knapsack pattern. This device is also used in connection with barrel and bucket sprayers. They are useful in destroying San Jose scale on fruit trees.

The smaller tank contains a quantity of kerosene which by a neat system of valves is admitted in the act of pumping with such force as to make a complete emulsion or mixture of oil and water. The apparatus is provided with an inductor to show just how much oil is being used. Any required proportion of oil and water may be pumped and sprayed as a perfect mechanical emulsion. These machines, together with a full line of spraying pumps and appliances of all kinds, are made by the Deming Company of Salem, Ohio, who also are sole manufacturers of the famous Bordeaux nozzle.

E. H. ADAMS, BONHAM, TEXAS, JANUARY 12: "Please find herewith enclosed \$1.00 subscription to NATIONAL NURSERYMAN. I am well pleased with its contents. Think it is worthy of success. I know of no other journal that would fill its place."

EUROPE'S LARGEST NURSERY.

At this season of the year when there are busy scenes on all the packing grounds of this country, it is of interest to note the conditions surrounding the largest tree nursery in Europe, that of Messrs. Spaeth, at Rixdorf, near Berlin. The frontispiece of this issue presents a scene of a portion of the Spaeth packing grounds.

This nursery includes 700 acres, 680 of which are planted with nursery stock which comprises practically all the perennial trees and shrubs that can be grown in the open air in that climate.

The house was established in 1720 by Christopher Spaeth, the great-grandfather of the present proprietors. It has remained in the hands of the Spaeth family and in direct line continuously from father to son. The order has been as follows: 1720—1746, Christopher Spaeth; 1746—1782, Carl Friederich Spaeth, I.; 1782—1831, Carl Friederich Spaeth, II.; 1831—1863, Johann Carl Ludwig Spaeth; 1863—1898, Franz Ludwig Spaeth.

By means of an elaborate system of ditches throughout the large nursery, affording unusual facilities for draining and irrigation, many kinds of nursery stock not generally grown in European nurseries are handled. The firm ships stock to all parts of the world, including North and South America.

The annual output of the Spaeth nurseries consists of 500,000 standard fruit trees, 300,000 dwarf fruit trees, 3,000,000 ornamental trees, 6,000,000 shrubs and 500,000 conifers. Between 300 and 400 employees are given work in the nursery.

The employees have a sick benefit association with a membership of 500; a kindergarten to which 60 children besides those of the employees and officers are admitted, and a restaurant. There is also a library connected with the institution containing many foreign publications, which are at the disposal of the young gardeners.

Recent Publications.

First Assistant Entomologist C. L. Marlatt, of the U. S. Department of Agriculture, is the author of a timely bulletin on the principal insect enemies of the grape.

No. 6 of volume ix. of the Experiment Station Record summarizes a bulletin by W. C. Sturgis, of the Connecticut station, in which it stated that of 43 replies in regard to San Jose scale, 13 report the scale present. "The scale seems to be widely spread throughout the state," says the author.

Secretary W. W. Farnsworth, of the Ohio Horticultural Society, has issued the official proceedings of the thirty-first annual meeting of the Society, held at Wooster, December 1-3, 1897. Among the valuable practical papers presented and discussed were those by Professors Mally and Webster on San Jose scale, which resulted in a bill for a commission to regulate the pest.

Nurserymen, botanists and all interested in the flora of the United States, have looked forward with much pleasure to the completion of the third volume of Nathaniel L. Britton and Judge Addison Brown's "Illustrated Flora." The publishers, Charles Scribner's Sons, New York, announce that the third and last volume will be ready this month. It will include the subjects from dogbane to thistle. The work figures every species, more than 4,000, in the Northern United States, Canada and the British Possessions, and is more important than anything of the kind heretofore published, because of its completeness. It is an arduous task well performed.

The National Nurseryman.

FOR GROWERS AND DEALERS IN NURSERY STOCK.

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VOL. VI.

ROCHESTER, N. Y., MAY, 1898.

No. 4.

HEAVY WESTERN TRADE.

Sales Active Since Early Winter—Prices Are Ruling Considerably Higher—Surplus Stock Used Up—Prospects Bright for Fall and Spring—Collections Have Improved Greatly.

TOPEKA, Kan., April 6.—F. W. Watson & Co.: "Trade has been unusually good this spring. All the cherry, peach, plum, pear, and commercial sorts of apple were sold out clean; there are a few northern sorts of apple unsold yet. Prices rule higher than last spring. Taking everything into consideration, trade has been the best we have had for the last five years.

"We anticipate better prices for the coming fall and spring, owing to the light plant of nursery stock which is general over the West; to the splendid crop of wheat the past summer, and the prospect of another record breaker this season. The farmers through the West have money and are liberal."

NORTH TOPEKA, Kan., April 6.—A. L. Brooke: "Trade has been excellent here this spring, prices on some branches of trade advancing almost 100 per cent. Surplus stock in the West is all used up, with the trade asking for more. This is just the opposite of one year ago."

GENEVA, Neb., April 11.—Youngers & Co.: "Our shipping season opened up this spring, about two weeks earlier than ordinarily, and has been heavier throughout than for the past four years. Prices are ruling better and, up to date, collections are very much better. Our business this year will probably run thirty per cent. ahead of last, and stock will be well closed out, except, perhaps, some heavy shade trees and a few light and medium plums.

"From our information at present, all the merchantable stock in the West will be closed out, and we will be ready to commence anew. We believe that prices are bound to advance for the fall business. The outlook is very much brighter than it has been for some time past. There is not the usual amount of young stock coming on, owing to nurserymen reducing their plants materially in the last two years."

SALT LAKE CITY, Utah, April 11.—Pioneer Nurseries Company: "Spring sales have been fully as good as last year. The principal trouble is low prices. The people are willing enough to buy, but they want the stock at about cost of production. We are sold out clean on everything except a few apples, and think the other nurseries here have done the same. We do not think the outlook is any better. Stocks are costing nearly double what they did last year, and indications are that it will be impossible to get a better price for the trees when grown. All the money in the country seems to be in the banks, where, of course, it does nobody any good. This is the result of the gold standard. We cannot expect anything different until there is a change of some kind."

OTTAWA, Kan., April 15.—A. Willis: "We have sent out the largest amount of stock we have done any year since we

began business. It is yet too early to report our success or failure in making collections, but at the present the outlook is hopeful. The prices we have obtained have been low, but somewhat better than last year on wholesale, and about the same on retail stock. The season has been one of the most difficult to do any work in we have had since I have been in business, owing to the great amount of rain, and to two heavy freezing spells that came when we were in the busiest part of the season. The great amount of rainfall has also retarded our planting seriously.

"All round, we will say, if our present hopes are realized in the matter of collections, this will be one of the best years in our experience. It is our earnest hope that the severe financial depression that has brought so many difficulties to our business is passing away."

LAWRENCE, Kan., April 15.—A. H. Griesa: "The nursery business has been very good this spring; sales have been active since in early winter; the demand has been for the leading winter kinds of apples, and peach trees; the other kinds could not be sold at paying prices; pear, plum and cherry trees were not in such demand; pay has been good in most deliveries. Where people have the money, they pay freely, and as crop prospects are good, a hopeful feeling prevails for the future.

"The future supply in nurseries is not large, yet no dearth will likely prevail in trees for some time to come; unless all the nurserymen should turn out to give freedom to Cuba."

MISSOURI HORTICULTURE.

Secretary L. A. Goodman, of the Missouri State Horticultural Society sends out another bulletin regarding the condition of the fruit crop. This one is dated April 15, 1898. It summarizes reports from eighty counties. It is declared that the injury from the late freeze in March was not so great as was supposed. There is a prospect for a good crop of apples all over the state. The peach crop in the southern part of the state was damaged by frost.

The drouth of 1897 affected the fruit trees so that the injury will be noticeable throughout this year. "The apple and peach trees," says Secretary Goodman, "so heavily loaded last year with fruit, were badly injured by the drouth, and I fear that the effect will be shown in the dying trees for the next few years. The enormous crop on some of our orchards so sapped the vitality of the trees that it cannot help but injure them."

Dr. Bernard E. Fernow, chief of the United States Division of Forestry, the newly appointed director of the new College of Forestry of Cornell University, Ithaca, N. Y., is at work arranging the curriculum of the college for announcement next summer.

IN THE CENTRAL STATES.

Trade Far Ahead of Any Season for Five Years—Stock well Cleaned Up—Demand for Apple Especially Heavy—Prices Generally Low—But an Increase Looked for in the Fall.

BRIDGEPORT, IND., April 7.—Albertson & Hobbs : "We are yet in the midst of our packing, this being about the sixth week in which we have had about all we could handle. The demand for apple has been especially heavy and the stock of many varieties has been entirely exhausted, though there is still some surplus, especially of the northwestern sorts and Ben Davis.

"Stock has been in stronger demand, though prices have advanced but little. Yet indications are certainly good for profitable advances another season, the surplus being pretty well cleaned up this season, and we think less salable stock to be carried over than there has been for many years. While there was a large stock of cherry early in the season, they are now going out rapidly, and it does not look as if there would be many, if any, first-class trees left by the end of the season.

"In fact, trade generally has been, we think, far ahead of that of any season for five or six years, and we can see no reason why the demand for fall should not be equally as good, and we believe with a much lighter stock to draw on to supply this extra demand. Of course we have not had chance yet to figure up sales, stock left, etc., but we will be much surprised if they do not show much as indicated above.

"Peach have also been in good demand, and most small fruit plants have been used up pretty closely. So we think, taking it altogether, that the nursery business is in the most healthful condition that it has been for many years, and the outlook for years to come is somewhat brighter."

WAUKEE, IA., April 4.—John Wragg & Sons Co. : "Our trade is 30 per cent. better than in the spring of 1897; not quite so good as in the spring of 1896. I believe the nurserymen of the West struck bedrock in the spring of 1897. The tendencies are for larger sales in the future than in the past two years. Tree planting has gotten a new impetus, and we look for a very large summer's business. We believe that stock will be cleaned up closer in the West this spring than any spring for three years."

SHENANDOAH, IA., April 11.—D. S. Lake : "We are now in the height of our spring delivery, and will be very busy for the next ten days or two weeks. As near as I can judge our sales are 25 per cent. larger than last year, and it looks as though the most of our surplus stock, which has been accumulating the last year or two, will be almost entirely worked off this season. I think that trade throughout the West has been much larger than it ever was before, and from what information I can get, the western nurserymen are well sold out in all lines."

DUNDEE, Ill., April 11.—D. Hill : "Business and sales thus far this spring are something similar to the seasons of 1891-2-3. Orders much heavier than I expected, and the inquiries at this time are simply enormous. Outlook for the future is very encouraging. Few nurserymen have kept up their annual planting of evergreens during the past years of financial depression; thus the great increase this year."

TROY, O., April 13.—George Peters & Co. : "Trade with

us this spring has been very good—much better than we anticipated at the beginning of the season. We have handled more nursery stock than for a number of years, and are satisfied our trade has been double that of last year, and prospects are very encouraging at this time for a grand fall trade. We are of the opinion that the prospects for nurserymen are much brighter than for some time."

OSAGE, Ia., April 12.—Gardner & Son : "Our retail business for spring of 1898 has been very satisfactory. Sales aggregate a little above last year, with better prices and customers better able to pay cash on delivery. Very little surplus stock will be left in the Iowa nurseries after the spring deliveries are made. We look for a sharp advance in wholesale prices on some staples which have been selling below cost of production. We shall increase our general planting about 40 per cent. over that of last year."

NORMAL, Ill., April 13.—Augustine & Co. : "Our sales this spring have been just about as heavy up to date as last year, probably a trifle better, with the exception of the Sudduth pear, which we are devoting most of our attention to. This has far surpassed our expectations. We have had the most favorable season for handling stock that we remember in years, the season opening up the first of March and continuing up to the present, everything still being in almost entirely dormant condition. Shipments heavier this week than any time previous this spring."

PAINESVILLE, O., April 15.—The Storrs & Harrison Co. : "It is difficult accurately to estimate the season's business at this date, as we are still busy shipping, with our books unposted. There is a diversity of opinion among our directors as to the probable results. Some think that the amount of stock handled will just about even up with last year, and others that it will considerably exceed last year; but all are agreed on one point, which is that owing to the ruinously low prices prevailing, our receipts will not exceed those of last season."

SPAULDING, Ill., April 8.—Spaulding Nursery & Orchard Co. : "At this date, April 8th, we do not expect to have a bit of salable stock to carry over or burn. Had to buy apple and plum. Sales heavier, but prices will leave very small profits. We think prices will be higher this fall. At this date have nearly all of our planting done. Angers quince stocks and peach seed yet to plant."

NEW CARLISLE, O., April 15.—W. N. Scarff : "Our sales to date are fully 25 per cent. in advance of spring of '97."

PHONETON, O., April 25.—The Albaugh Nursery and Orchard Co. : "Trade here for spring very good. Nearly all large stock off our hands. Young stock looking fine, especially peach and cherry buds. All the nurseries had heavy trade. Phoneton is our new postoffice, established at the nurseries."

The well-known importer, Christian H. Joosten and his wife celebrated the twenty-fifth anniversary of their wedding on March 28, at their home in New York City. There were Dutch speeches, Dutch songs and Dutch cooking and all were greatly enjoyed. Mr. Joosten came to this country in 1862, served in the civil war under Grant, Sherman and Sheridan and retired with the rank of quartermaster-sergeant. He is an active member of the New York Florist's Club and of the Holland society, Eendracht Maakt Macht.

GOOD TRADE IN THE EAST.

All the Wholesalers Busy During a Long Packing Season—Belief That Low Prices Will be Followed by an Increase in the Fall—Canada's Restriction Act Affected Same Unfavorably.

GENEVA, N. Y., April 8.—W. & T. Smith Company: "It is our opinion that shipments from Geneva this spring have been fully as large as in other seasons. The earliness of the season has helped us greatly in making our shipments, and we think most stock will be pretty closely bought up with the exception perhaps of some standard pears, quinces and European plums. The surplus of apples, peaches and cherries seems to have been entirely disposed of."

WESLEY, MD., April 9.—Wm. M. Peters' Sons: "This spring sales far in advance of last spring. One reason was that we had much more to offer, but am certain that the general demand was an increase over last year. We have no complaint to make and feel much encouraged to increase our plant this spring on a general line, peach trees and strawberry plants being a specialty, and our plant of apple more than three times that of last season."

"Orders are still coming in. It is an unusual thing for us to receive many orders after April 1st. Sold more peach this spring than we ever did in one season. If we were to tell you how many, you would naturally say that sounds loud."

"Retail trade with us increased 50 per cent. and our opinion is that the coming season will be an improvement for all lines of nursery stock."

BALTIMORE, April 11.—Franklin Davis Nursery Co.: "We have had this spring the best season for many years, both in wholesale and retail trade. It has crowded us to keep up with our orders, and at this writing we are still very busy. As far as we can learn, the indications for fall are favorable to satisfactory trade."

NEW YORK, April 11.—André L. Causse: "I do not carry nursery stock in this city, but simply take importation orders in the summer and fall for winter and early spring delivery. All I can say is, that the demand has been more active for the importation of nursery stocks than it has been in the last two years; and owing to short supplies abroad, prices made late in the winter were higher than those at which sales were effected last May and June for winter delivery."

"I anticipate a good trade next year and unless political events interfere with business, we should see better prices in the season of 1898-99."

BRIDGEVILLE, DEL., April 11.—Myer & Son: "In spite of the fact that the Canadian law was passed just at the beginning of the packing season, causing orders to be cancelled, and the extremely early spring stopping the sale of peach, our spring sales thus far have been unusually large. The price of peach has been low. Other stock has kept at about the same price as last year. The cold snap of the past few days has injured the peach buds in this locality, but there is still a prospect of a pretty fair crop."

GERMANTOWN, PA., April 15.—Thomas Meehan & Sons: "We commenced business fully two or three weeks earlier than usual, and we have done an immense amount of trade since the shipping season started. If it continues as late as usual, we feel certain that the amount of stock shipped will be considerably in excess of former years. At the present writ-

ing it is quite cold and though the foliage has started to some extent, yet it appears as though the season would remain open as long as usual. In this case, the results of spring business will be very gratifying."

"We think the amount of ornamental stock offered by nurserymen this spring is about equal to what it has been in the last few seasons, and far too much to make the business as profitable as it would otherwise be. The trade in ornamental stock is being over done, just as it was with the fruit trade business."

SYRACUSE, N. Y., April 15.—Smiths and Powell Co.: "We have had a short, busy season and had prices been anything like what they should have been we would say we have had a good season. Prices are so low that it is discouraging and while there seems to be an upward tendency, it is so gradual and slow as to be almost provoking. It will be a matter of pure conjecture, as to what the future of the business will be, with the "jingo" talk in our national legislature and elsewhere, and the prospects of a war ahead. Unquestionably there are fewer trees in the nurseries of the United States, than there were a few years back, but we doubt if the "cut" in planting has been sufficient to overcome the glut there has been in the market."

"Just at this time we are giving our time and labor to the preparation of a catalogue and making arrangements for our dispersion sale, of all of our horses and cattle, which will take place on the fair grounds, near this city on May 3 and 4."

READING, MASS., April 11.—Jacob W. Manning: "Indications are favorable for a good spring business."

RICHMOND, VA., April 8.—W. T. Hood & Co.: "Our spring retail trade has been fairly good, though not as large as our trade of '97. Collections have been satisfactory. The outlook for the fall retail trade is not as good as a year ago. The trade demand for stock is very light, and prices are so low that there is very little encouragement to the grower. The buyer now has every advantage."

CAYUGA, N. Y., April 7.—Wiley & Co.: "Our spring of '98 sales to date are nearly double last spring's sales. Too early to anticipate what they will approach, as many orders are coming in now and will continue for two weeks or more."

"As was feared by some, the recent prohibitory legislation by the Canadian people will leave a surplus of stock at some of our nursery centers, which is already being offered at prices which tend only to demoralize the business. Growers are largely responsible for prevailing prices—better burn our surplus trees than to sell below cost of making them."

WEST CHESTER, Pa., April 8.—Hoopes, Bro. & Thomas: "Spring with us opened unusually early and we have therefore been more busy than is customary up to this time, and consequently have been able to get more stock away. The prices, however, are so unsatisfactory and so low that there is not much encouragement. We think the nurserymen have only themselves to blame, and we believe at the end of the season there will be very little merchantable stock left over."

BAIRD, N. J., April 9.—David Baird & Son: "Our spring shipping opened very much earlier than usual, and our business up to date has been much heavier than last year. With an average of considerably lower prices, we are alarmed at this reduction, as it not only points to no profit but actual loss. This state of affairs, however, must correct itself."

ELIZABETH, N. J., April 9.—Hiram T. Jones: "The local demand is much better than last year. The demand from nurserymen for small stock to plant out, both of fruit and ornamental seedlings, has been in excess of supply, and orders are still coming in very freely."

NEWARK, N. Y., April 19.—Jackson & Perkins Co.: "We are sold out this spring more closely than we ever have been within the last five or six years. Up to the first of March we found business very dull and fully expected to have a large amount of surplus either to burn or to carry over, but during March and the present month business seemed to pick up very well, indeed. We confidently look for much better wholesale prices upon nearly all kinds of stock the coming season."

MILFORD, DEL., April 19.—A. Pullen: "This spring we have had a much larger business than we have had for many seasons past—though the prices on output ruled low. The Japan plum trees were especially in strong demand."

BERLIN, Md., April 24.—J. G. Harrison & Sons: "Our season is about closed, one of the best we ever have had. We ran short on many lines of stock. From the stock of peach last season of over one and a half million budded, we have less than 50,000 to burn, and those are unsalable varieties mostly."

"To say we had to hustle is putting it mild. Strawberry plants have gone by the hundreds of thousands, till there is hardly one hundred thousand left. We have increased our plantings; have now sixty acres to strawberry plants, and in order to keep in pace with our ever-increasing trade, we have purchased what we consider an ideal farm for our fall planting of peach seed, as we like to plant on virgin soil. It is located in the town limits of Berlin, and on the Baltimore and Eastern Shore Railroad, and is particularly adapted to the growth of peach trees."

NO SCALE LAW IN MASSACHUSETTS.

Jacob W. Manning, Reading, Mass., writes: "As is well known, there is as yet no law in Massachusetts whereby a nurseryman can obtain an official certificate of the freedom of his stock from injurious insects or diseases. However, in order to protect ourselves and our customers, at our own expense, we have annually for the last three years had our nurseries thoroughly examined by Professor A. H. Kirkland, formerly of the Massachusetts Experiment Station, and now employed as entomologist to the Gypsy Moth Commission by the Massachusetts Board of Agriculture, and we have no hesitation in declaring our stock absolutely free from San Jose scale or other dangerous insects."

"Since so many nurseries have become infested by the San Jose scale, in order to prevent the introduction of the pest into our own nursery, we have erected a fumigating house, where all stock received and sold, which is liable to dangerous insect pests, is given a thorough fumigation with hydrocyanic acid gas as recommended by Dr. L. O. Howard, government entomologist, and the other leading entomologists of the country."

Thomas Meehan & Sons, Germantown, Pa., are pioneers in the raffia business.

Jackson & Perkins Co., Newark, New York, make a specialty of the Yellow Rambler rose and Cumberland and Iceberg blackberry.

NORTH AND SOUTH.

TORONTO, April 19.—Stone & Wellington: "Trade with us this season is good. Retail sales are larger than for the past couple of years. There has been an unusual demand for apples, and a corresponding falling off in the sale of other stock. Sales of peaches have been light, because of the surplus crop last year, and the same remarks apply to small fruits. On account of the passage of the San Jose scale act, our wholesale trade has been unusually large. We have fortunately been able to pack most of the American firms doing business in Canada. Do not think there will be heavy planting another year, unless prices for fruits should materially improve."

GLEN ST. MARY, Fla., April 18.—G. L. Taber: "Our spring sales shut off earlier than heretofore on account of war talk. The season, as a whole, however, was a very satisfactory one."

MACCLENNY, Fla., April 12.—The Griffing Brothers Co.: "We have had a good trade in Texas and other gulf coast states, and our retail business in Florida has been especially good. The wholesale trade has been very satisfactory, particularly the call for Japan plums, of which we are extensive growers, in the northern and eastern states."

"We have noticed a decided falling off in the demand for peach trees in central southern states, which is undoubtedly caused by the short crop of peaches in that section during the past season. As a whole the season's business has been very satisfactory."

PACIFIC COAST NEWS.

Fruit Inspector Henry C. Chew, of Walla Walla county, Washington, reports to the *Northwest Horticulturist*: "The nurseries have been doing a good business this year. The demand for trees has been mostly for the best winter varieties of pears and apples. Among those who are planting trees the Blalock company takes the lead with 5,000 trees. Dr. Mauzey, of Spokane, has quite a large fruit farm here, and has about 1,000 trees added to his list."

Allen Emerson, nurseryman, is president of the Lincoln County, Wash., Horticultural Society. Fruit land ranges from \$50 to \$200 per acre, according to location and water privileges.

C. N. Sandahl, proprietor of Puget Sound Nursery Company, and A. L. Aabling, manager of the Pacific Nursery Company, informed me that they have sold more fruit trees for this spring planting than the total amount for the past three years. I have in an official capacity visited about 1,500 yards and orchards, says Inspector W. H. Brown, of King county, Wash.

Inspector Orlando Beck, of Yakima county, Wash., reports: "In regard to fruit conditions here, some of the fruit pests found are San Jose scale, oyster shell scale, red spider, codling moth, pear and cherry slugs and green aphids. There has been much controversy in regard to the scale being transmitted to fruit trees through infested oranges. We propose to sell clean fruits or none, and we will not have any other state make us a dumping ground. Our California friends must clean their oranges and lemons if they want our trade. Our county has spent thousands of dollars this season fighting pests and expects to spend more or have clean, salable fruit."

IN THE GENESEE VALLEY.

*Shipments Considerably in Advance of Those of Last Year—
Late Sales Affected by Canadian Restriction Act—An
Advance in Prices All Along the Line.*

ROCHESTER, N. Y., April 18.—Chase Brothers Company: "We are just winding up our spring business and are pleased to find that the results so far are satisfactory. The amount of retail shipments made by us this spring is considerably in advance of those of a year ago. And we also find a considerable increase in the amount of wholesale trade."

"While we haven't the gift of prophecy, still it seems to us that the indications for the coming year are favorable, and we confidently expect a handsome increase in our sales."

ROCHESTER, N. Y., April 8.—Irving Rouse: "Our spring sale has been heavier than in any spring during the past five years, although prices have been unremunerative. Up to the time of the enforcement of the Canadian exclusion act it looked as though there would be an absolute scarcity in a good many lines of stock, but so much stock has been prepared for Canadian orders and then thrown on the market, owing to the fact that it could not be shipped as sold, that the result was almost a total shut down on orders."

ROCHESTER, N. Y., April 19.—The H. E. Hooker Company: "Sales for spring have been far beyond our expectations. Buyers held off until late, but since the opening of the season, which was unusually early, we have been rushed with orders, and all kinds of fruit trees and ornamentals have been cleared up."

"There is a great improvement on last spring's business, and we look for a considerable advance in prices all along the line for next fall."

ROCHESTER, N. Y., April 11.—Brown Brothers Company: "We have no reason to complain regarding this spring's business. Sales are quite satisfactory, and we believe collections will be excellent. We believe that the nursery business, along with other lines, is steadily improving, and that the general outlook for the retailer is favorable."

"We wish we could say as much for the grower, for we can see no reason for expecting any material increase in wholesale prices. Large quantities of stock are being planted this spring with every prospect of the continuance of an overcrowded market for some years to come."

ROCHESTER, N. Y., April 8.—The Hawks Nursery Co.: "We report spring sales larger than they were last year. Our salesmen have done better since January 1st than for the corresponding period of 1897, and we expect good returns from them during the coming season."

ROCHESTER, N. Y., April 9.—Hooker, Grover & Co.: "Our sales for this spring's delivery are considerably larger than those of last spring, and in this respect the conditions of business are very gratifying."

"As to the outlook, it is difficult to say at the present time what may be expected, but we hope to see a considerable increase in business during the next six months."

ROCHESTER, N. Y., April 28.—John Charlton & Sons: "Business has been better than last spring and, although prices have not quickened, we look forward to an improve-

ment in the coming fall and following spring. We had several good orders in Canada which were cut off by the exclusion act. The passing of this act has helped the large nurseries of Ontario, as they had to furnish trees for filling the orders of some of our large retailers, thus, causing a large surplus here."

DANVILLE, N. Y., April 21.—James M. Kennedy: "The nursery business opened up at least one month earlier than usual and continued up to the present date without any drawback. We have had our usual wholesale trade and the retail trade increased at least 25 per cent. The demand for nursery stock has been good, but the prices were not up to a year ago. About all the surplus stock will be used up when the season is over. From present indications we do not see much encouragement for better prices in the near future, as there seem to be too many trees on the market for the demand for fair prices."

"Our plantings this spring are about one-half to two-thirds less than a year ago. In fact some of the leading firms will not plant any. We only hope at other places nurserymen will shorten their plantings at least one-half and in a few years better prices will prevail. We are about all through shipping, both wholesale and retail. A good many orders have been booked for next fall's delivery at about the same prices as last fall. I am satisfied no nursery stock has been injured by the winter, and last year's budding is looking fine."

AT KINSEY, OHIO.

KINSEY, O., April 18.—Samuel Kinsey & Co.: "Spring trade with us has been very good, and, with the exception of some few items, merchantable nursery stock will be pretty closely used up. Many leading varieties of apple were well exhausted early in the season. There is still a small surplus on some kinds, but all leading varieties are pretty well cleaned up. The same can be said of cherries and plums. There are still some peach and quince in surplus, but some of these may still go out, as the shipping season is not yet quite over. The sale on currants and gooseberries has lagged behind and on these there will remain a surplus."

"Ornamental stock, shade trees and roses have found ready sale. Prices on a number of things still average very low; but upon the whole we are pretty well satisfied with the season's output and, while we have not footed up our sales, we are confident they will show a gain over the sales of a year ago."

"As a rule nurserymen have somewhat, (and we think wisely too) curtailed their plantings the last few seasons and the results will be, that we may not have such large brush heaps in the near future. With present indications of more remunerative prices and with good fruit prospects thus far, we believe the coming season looks more encouraging for the nurserymen in general."

SUBSCRIBER FROM THE FIRST.

W. B. OTWELL, CARLINVILLE, ILL.—Please find enclosed \$1.00 on subscription. I think my trees grow better since I began taking your magazine, which by the way dates from the first issue.

JUST WHAT EVERY NURSERYMAN WANTS.

W. H. KAUFFMAN, STRATFORD, Ia.—"Enclosed please find \$1 to renew my subscription to NATIONAL NURSERYMAN. You are putting up a good clean paper and just what every nurseryman wants."

STATE LEGISLATION.

Laws Have Been Passed in Eleven States Governing Scale on Nursery Stock—New Measures in Iowa, Maryland and New Jersey—Four Bills are Still Pending.

Up to 1898 nine states, California, Georgia, Kentucky, Maryland, Michigan, North Carolina, Pennsylvania, Virginia and Washington, had laws regulating the transportation of nursery stock with respect to San Jose scale.

This year Iowa and New Jersey have passed scale laws and Maryland has passed a new law. Thus there are now eleven states having scale laws.

Scale-bills were pending in New York, Kentucky, Delaware and Ohio at the time of going to press.

NEW JERSEY LAW.

The New Jersey scale bill became a law on March 24. It provides that the executive committee of the state board of agriculture shall appoint three commissioners in each county who upon information shall notify owners of trees or plants infested with injurious insects to disinfect or destroy such stock. If the order is not obeyed within five days' time the commissioners shall notify the state entomologist who shall direct the method of procedure to rid the stock of the pest. The order of the state entomologist shall be executed by the commissioners in the county in which the pest is discovered. If the owner of the stock regards the order as unjust he may appeal to the director of the state experiment station and the president of the state board of agriculture; and the state entomologist shall stay proceedings until the appeal committee decides the case.

A penalty of \$25 and costs is provided in case the order of the entomologist is not obeyed. Any nurseryman of New Jersey may require an examination of his stock provided he pays the expenses therefor; certificates shall be issued in case stock is found free from pests or disease. Improper use of such certificate is punishable by a fine of \$100.

All nursery stock shipped into New Jersey must bear a similar certificate from authorized persons, stating that the stock has been inspected not more than six months from date of shipment. Any stock shipped into the state without such certificate may be seized and if found infested with scale or other pest it may be destroyed or shipped back to the sender. Florist's stock is exempted from the provisions of the act.

IOWA SCALE LAW.

The bill drafted by nurserymen and horticulturists of Iowa will become a law in that state on July 4, 1898, but in a form somewhat changed from that in which it was presented. As the bill came out of the legislative mill it provides that the state entomologist or his assistants, between June 1 and September 15, when requested by the owner, or when he has reasonable grounds to believe the scale exists, shall carefully examine any nursery, fruit farm or other place where trees or plants are grown for sale, and if such trees and plants are found apparently free from scale he shall issue his certificate to that effect and shall collect therefor a fee of not less than \$5 nor more than \$15, according to the amount of stock inspected. It shall be unlawful to sell or offer for transportation outside the county where such nursery stock is grown, any nursery stock unless accompanied by a copy of this certificate.

The state entomologist or his assistants may establish quarantine regulations in any nursery or orchard where the scale is found. He may direct the treatment or destruction of infested trees. If this work is not done at ten days' notice, the entomologist may do it and charge the cost to the owner of the trees, the cost to become a tax on the property.

No nursery stock may be shipped into Iowa without a certificate of inspection by the state entomologist of the state from which the shipment was made, showing the stock to be free from scale. Should scale be found in such stock the Iowa entomologist may proceed as before.

Persons violating this act shall be adjudged guilty of a misdemeanor and upon conviction shall be fined not less than \$10 nor more than \$100 and costs for each offense. Such amounts shall be added to the fund for this act. The state entomologist shall be paid all traveling expenses and \$5 per day by the state. The sum of \$1,000 is appropriated to carry out the provisions of the act.

NEW MARYLAND LAW.

On April 2, 1896, was approved an act passed by the General Assembly of Maryland providing for the examination of nursery stock as to insects and diseases with particular reference to the San Jose scale. That act and the one in Virginia approved March 5, 1896, started the state legislation against the San Jose scale in the East.

Now a new Maryland law has been passed. It was approved April 9, 1898. A copy has been sent us by State Entomologist W. G. Johnson. It comprises sections 51 to 65 inclusive of the trees and nursery stock sub-title of the inspection title of article 48 of the code of public general laws of the State of Maryland.

The law makes it the duty of the state entomologist, state pathologist and state horticulturist to seek out and suppress all pernicious insect pests and contagious diseases dangerous to the plants and trees of the state. To do this they may have power to enter upon any premises for inspecting, treating or destroying infested stock, or stock in dangerous proximity to infested stock. If upon ten days' notice the owner of infested stock does not treat or destroy it, the officers named may do so and charge the expense to the owner. Inspections shall be made annually at least of all horticultural interests and at least every six months of all nurseries. If found free from insects or diseases certificates shall be issued. Nurserymen must pay the cost of treating or destroying stock. All stock sent out from Maryland nurseries must bear the proper certificate. Penalty for violation is a fine of from \$10 to \$100.

All trees and plants known as nursery stock, subject to attacks of the aforesaid insects or diseases shall be fumigated by the nurserymen, with hydrocyanic acid gas in buildings approved by the state officers and under their direction. It is stated that this section was added by Maryland nurserymen themselves.

When any nursery stock is shipped into Maryland, every carload, bale, box or package shall be plainly labeled on the outside with the names of the consignor and the consignee, and a certificate showing that the contents have been inspected by a qualified state or government officer and are apparently free from injurious insects or disease. Otherwise the state officials upon notification may summon consignee or consignor to show cause before a justice of the peace why such stock shall not be seized as being in violation of this law; and the

justice may order the stock returned to the consignor unless he will pay the expense of an inspection. Should the consignee fail to have the said stock either inspected or returned to the consignor, the justice may order the sheriff to burn the stock. Any transportation agent receiving stock without a certificate, shall notify the state officers under penalty of from \$10 to \$100 for not doing so. The purchaser or consignee of infested stock burned by Maryland authorities shall not be obliged to pay for such stock.

The state officers shall submit annual reports on or before February 1, of their inspections and these shall be distributed as bulletins. The first of these bulletins shall be the work done by the state entomologist up to date on this subject. The sum of \$10,000 for the first year and \$8,000 annually thereafter is appropriated to enforce the act which took effect on the day of its passage.

WILLIAM PITKIN.

The secretary and treasurer of the Chase Brothers Company for more than a decade, William Pitkin is one of the best known nurserymen in Western New York. He was born in Rochester in 1858 and he has been connected with the New England Nurseries since 1880. The Chase Brothers Company, established in 1857, was incorporated in 1887, since which time Mr. Pitkin has been secretary and treasurer. The president is Lewis Chase; the vice president, C. H. Perkins, of Newark, N. Y. These three gentlemen, with Henry J. Peck, of Brighton, constitute the board of directors. Mr. Pitkin has charge of the office work, which in the case of this company, as is well known, is very extensive.

Mr. Pitkin has been prominently associated with the work of the Eastern Nurserymen's Association. Since that organization was started, in 1888, he has been the secretary. This association embraces in its membership wholesale and retail nurserymen of the eastern states, principally those of Western New York. It has members in Pennsylvania, Ohio, Maryland, Massachusetts and Connecticut. The objects of the association are to advance the business interests of the members. Its first work was the adjustment of freight rates. It has done effective work in matters of tariff and other legislation. The association was organized for work and its members are not content to meet but once a year. Whenever matters of interest to the trade need attention, the association is called together.

In addition to his duties as secretary of two large organizations, Mr. Pitkin has served as a member of the board of trustees of the Rochester Chamber of Commerce for six years. His company is a member of the American Association of Nurserymen and of the Western New York Horticultural Society. Mr. Pitkin is also a director in the Central bank, of Rochester.



WILLIAM PITKIN.

CANADIAN RESTRICTIONS.

Editor NATIONAL NURSERYMAN :—

With regard to the motives which led to the passage of the Canadian act excluding nursery stock from the United States, I may say—speaking as one who knows the history of the case—that the Canadian nurserymen had much less to do with it than the Canadian orchardists. The nurserymen were diffident in making any move toward introducing legislation of any kind. The growers were, however, very urgent, and the more so when each case of infestation was traced back to the United States. The position of the growers was, of course, materially strengthened by the interstate and other legislation now being discussed at Washington. One act seems to be quite as consistent as the other, while the machinery necessary to operate the inspection act effectively will necessarily be very effective.

On behalf of United States nurserymen it is but justice to say that the majority of those who unwittingly sent Canadian growers infested stock, notified the recipients of such stock as soon as possible. This was honorable and just, but unfortunately all nurserymen did not do this, and consequently injured their own cause—though, of course, they might rightly plead ignorance.

The main point I wish to make, however, is that the minister of agriculture did not yield to importunities of many deputations, all urging exclusion of United States nursery stock, till every fruit growers' association in the Dominion had strongly pronounced the same verdict. It should be remembered that another year's experience may modify our opinions considerably, and that it is quite possible public opinion may call for a repeal of the act.

JOHN CRAIG,
Late Horticulturist, Expt. Farm,
Ottawa, Canada.
Ithaca, N. Y., April 4, 1898.

THE SUBJECT EXAGGERATED.

Regarding the San Jose scale scare, the *California Fruit Grower* says: "While the imported pest got its first foothold in this state and did its worst here, it is no longer serious in California, because of its destruction by its natural parasite, *Aphelinus fuscipennis*. The New Jersey experiment station also deserves the credit of not joining in the scare. This scale should be diligently fought by both natural and artificial means, but should not be made the subject of a scare that may sacrifice the foreign market for our surplus fruit. The truth is that the whole thing has been grossly exaggerated, and no real reason exists for the exclusion of American fruits which Germany and Austria have attempted."

The National Nurseryman.

C. L. YATES, Proprietor.

RALPH T. OLCOTT, Editor.

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Correspondence from all points and articles of interest to nurserymen and horticulturists are cordially solicited.

AMERICAN ASSOCIATION OF NURSERYMEN.

President, Irving Rouse, Rochester, N. Y.; vice-president, E. Albertson, Bridgeport, Ind.; secretary-treasurer, George C. Seager, Rochester, N. Y.

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Committee on Legislation—C. L. Watrous, Des Moines, Ia.; N. H. Albaugh, Tadmor, O.; Silas Wilson, Atlantic, Ia.; Irving Rouse, Rochester, N. Y.

Annual convention for 1898—At Omaha, Neb., June 8, 9.

Entered in the Post Office at Rochester, as second-class matter.

ROCHESTER, N. Y., MAY, 1898.

SPRING TRADE.

We present in this issue interesting reports from special correspondents in all sections of the country regarding the spring sales. Their tenor is most encouraging. Particularly in the West has there been a trade much heavier than for several seasons and a marked strengthening of prices is noted. Collections, too, are reported better. There is a general belief that the curtailing of planting has produced results which indicate a still better condition of trade in the fall. In the East the advance in business has not been so marked, yet the reports are generally in harmony with those from the West as regards a substantial improvement.

Comparatively little is heard just now of the San Jose scale and if the war with Spain does not seriously affect business, the prospects should be regarded as bright. Prominent nurserymen are of the opinion that the matter of prices will be adjusted by fall or next spring through the natural course of events.

It is to be noted that the improvement is here in spite of the scale scare in this country, state legislation or the action of Germany and Canada regarding our exports.

THE OMAHA CONVENTION.

The twenty-third annual meeting of the American Association of Nurserymen will be held at the exposition grounds in Omaha, on June 8 and 9. It is expected that the attendance from the East will not be large, but there will be many prominent nurserymen from the western and the central states.

As the attractions of the exposition are expected to fill considerable time during the convention a short programme has been prepared. This of course may be extended to suit the wishes of those present by the discussions that may be brought up.

President Irving Rouse will deliver his annual address, following an address of welcome by Gurdon W. Wattles, president of the Trans-Mississippi and International Exposition. C. L. Watrous, chairman of the executive committee of the Association will talk on "A Little Matter of Business." S. M. Emery, of the experiment station at Bozeman, Montana, will discuss "Fruit Prospects in Montana." Hon. N. H. Albaugh, of Tadmor, O., will speak on a topic of interest to the members and Professor F. W. Taylor of Lincoln, Neb., who has charge of the horticultural department of the Exposition, will deliver an address on "The Relation of Horticulture to the Exposition."

WAR AND TRADE.

The principal topic is the Spanish-American war, and there has been considerable speculation as to its effect upon business. The apprehension of war has been affecting business, but in a less degree than might have been expected. The effect has been shown mainly in the refusal to undertake large transactions for the future.

Now that apprehension has given place to realization of war, it is well to consider probable effects. The situation is reassuring. With a war carried on upon the sea and in foreign territory, the commerce and industries of this country should be only moderately affected. The bulk of the business will undoubtedly proceed in nearly all its normal volume. This country will not be invaded, for the resources of Spain are inadequate. We have no large carrying trade exposed to attack, our imports and exports being carried mainly in foreign bottoms.

The tendency on the stock exchange is still one of buying rather than selling. During the past three months, with war steadily approaching, sixty active stocks have declined only seven points on an average. Europeans regard our ability to meet all our obligations with as much equanimity as we do ourselves. Our revenues are increasing; our credit is high. Gold has been flowing this way steadily, and there is every indication that this will continue. Railroad earnings have increased, and there has been with few exceptions a continuous development of prosperity in the manufacturing centers.

The effect of the war will be felt mainly in the burden of taxation, but compared with other nations our taxes are light, and large additional revenue can be raised without great inconvenience, by means of long-time bonds. There is no characteristic of the war which should affect the nursery busi-

ness in particular, so nurserymen are only interested in the general effects. Calmness among the bankers and holders of securities is needed to protect the sensitiveness of credit. It is argued by some that a short war will stimulate business, by putting large quantities of money into circulation.

A SOURCE OF INFORMATION.

During the packing season, last month, a Rochester nurseryman found it necessary upon short notice to seek information regarding the provisions of the Michigan nursery stock law, and he spent considerable time hunting about for the facts. He finally obtained the information from a member of the Eastern Nurserymen's Association, which, by the way, is an organization of much value to its members. This association is composed of nurserymen throughout the eastern part of the country, and serves its members with much valuable information as does the Western Association. In times of tariff and insect legislation each of these associations has supplemented the work of the American Association, much to the advantage of nurserymen generally. An increased membership is welcomed by the associations.

In this connection it is proper to say that it is for the purpose of furnishing just such information as was wanted by the Rochester nurseryman referred to that the nurseryman's trade journal exists; and this journal long ago gave the provisions of the Michigan law. Had the NATIONAL NURSERYMAN been on file in the office of that nurseryman, he would not have had to go outside of his office for the information wanted. The subscription price, \$1, is a small sum compared with the amount to be saved often.

CANADIANS OBDURATE.

Notwithstanding strong efforts on the part of an influential nurseryman of New York State the Canadian restriction law was maintained in full force through the spring packing season.

As soon as the Canadian law was signed, President Irving Rouse of the American Association of Nurserymen, realizing that there was no time to lose, and finding others very busy with spring business, undertook, single-handed, to have the Canadian government reconsider its action. He proceeded in regular manner by placing the facts before the state department at Washington, writing some very earnest letters to Assistant Secretary of State Day. At the same time he enlisted the active co-operation of Congressmen Brewster and Wadsworth.

Secretary Day, appreciating the importance of the subject and realizing that no time should be lost, at once began negotiations through the British ambassador, Sir Julian Pauncefote, to secure the rescission of the restriction act of the Canadian parliament. Failing in that, Secretary Day, at the suggestion of President Rouse, endeavored to obtain the revocation of the restrictions as to nursery stock from the United States insofar as they applied to existing contracts; but the Canadian government was obdurate and made it plainly understood that it was for the very purpose of affecting existing contracts that the bill was hurried through parliament under a suspension of the rules.

It is believed that during the summer the Canadian government will be induced by the people of Canada to rescind the measure, for there is much opposition to it throughout the Dominion among buyers of nursery stock who have found prices largely increased. The law gives the governor in council the right at any time to exempt any stock from the provisions of the act.

Should the law continue in full force retaliatory legislation may be looked for on the part of the authorities of the United States.

THE FEDERAL BILL.

The Spanish-American complications stopped the consideration of ordinary matters in congress, and the federal scale bill with many others must await the course of events. The bill has been acted upon favorably by the committee and is ready for action by both houses. The opposition can hardly be said to amount to anything. The principal point at issue is the appropriation of \$100,000 for executing the provisions of the bill. Congressman Barlow was putting forth every effort to secure the approval of Speaker Reed to this item when the Spanish question reached such a point as to absorb the attention of congress. It is thought now that exigencies having demanded the appropriation of millions for national defense and offense, the appropriation of the amount named in the scale bill will no longer be regarded as encroaching upon the appropriation record which the speaker was endeavoring to make.

TRANS-MISSISSIPPI EXPOSITION.

Editor NATIONAL NURSERYMAN :—

The planting of trees and shrubs on the Trans-Mississippi and International Exposition grounds has been done by R. Ulrich, who had charge of that work in Chicago and made such a magnificent success of it. All the material planted looks fine up to this time, and unless something unusual prevents, the exhibit will be as fine as anything ever made on any exposition grounds. The space in the horticulture building is practically all let and the exhibitors have arranged to have plenty of material to put on so as to make the exhibit a success from the very start.

Every effort is being made to have the building full and the grounds in beautiful shape from the very opening as the nurserymen's meeting is the first one to be held, and the desire is to put the best foot forward.

The horticulture building is a beautiful structure and the most pretentious architecturally, as well as the most beautifully outlined of any of the Exposition buildings. It stands on a bluff and is well raised from the ground so as to give a very imposing appearance. Every Trans-Mississippi state and some others will be represented with exhibits.

Omaha, April 17, 1898.

F. W. TAYLOR.

The nomenclature committee of the Society of American Florists is desirous of laying before the society any cases of misnaming or double naming of plants handled by the American trade, which ought to be considered by the society. Professor William Trelease, St. Louis, is chairman.

Among Growers and Dealers.

J. Blaauw, Boskoop, Holland, is in New York city.

Florists report a spring trade largely in excess of last years.

James Whalen, Watertown, Wis., died April 15, aged 65 years.

Nelson Bogue, Batavia, will furnish trees for Belle Isle park, Detroit.

J. E. Curtiss, Barre Centre, N. Y. has all kinds of stakes for nurserymen.

J. Koster, of Koster & Co., Boskoop, Holland, arrived in New York early in April.

W. C. Harrison is assistant treasurer of the Storrs & Harrison Co., Painesville, O.

Professor L. H. Bailey of Cornell University is in Europe. He will be absent until September.

Harlan P. Kelsey was elected a member of the Massachusetts Horticultural Society last month.

J. G. Harrison & Sons, Berlin, Md., used 78 cars in disposing of their peach trees this spring.

Horticulturist H. E. Dosch has secured over 6,000 feet of space for Oregon exhibits at the Omaha fair.

The Paterson, N. J., Park Commission awarded to the Elizabeth Nursery Company the contract for furnishing necessary trees.

On April 4th, a bill was introduced in congress incorporating the Society of American Florists and Ornamental Horticulturists.

Professor J. Ritzema Bos, of Amsterdam, Holland, will be sent to the United States soon by the Dutch government to study the San Jose scale.

J. E. Killen, representing C. H. Joosten, the well-known importer, of New York city, called on Western New York nurserymen early last month.

The summer meeting of the Missouri Horticultural Society will be held this year, as last, upon the dates of the annual convention of the American Association.

The government of Switzerland has prohibited the importation of American fresh fruits. This action was taken owing to the alleged presence of the San Jose scale in the fruit imported recently.

The San Jose scale scare has passed somewhat and horticulturists have wisely concluded that this new pest is no more to be feared than many others, says J. W. Sylvester in one of the best known farm journals.

The officers of the Griffing Brothers Company, incorporated, are: President, W. D. Griffing; vice-president and general manager, W. C. Griffing; secretary and treasurer, C. M. Griffing; superintendent of propagation, A. M. Griffing.

The seedling apples of Arkansas have nearly all proved very satisfactory in California, so far as tried. Nineteen varieties originating in that state are thought, by Prof. J. T. Hinson of the experiment station, to be worthy of cultivation.

"Why not send the nurseryman scions of what you want and know what you are planting," says a writer in a horticultural exchange. "Let him send you the trees, grown from your own varieties. If they cost more, they will be cheaper in the end."

Frederic W. Taylor, the well-known horticulturist and present superintendent of agriculture and horticulture at the Trans-Mississippi and Internal Exposition at Omaha, married at Chicago, April 12th, Miss Marion Treat, of the musical department of the Nebraska State University at Lincoln, Neb.

"Whatever the cause," says A. H. Griesa, Lawrence, Kan., "we have too many unproductive varieties, on which we spend our hopes, our time, money and years of labor without profit; and were these efforts combined with the best varieties, success would crown our years. We have but one life here; opportunities come but once. We have time for only our best efforts."

WHAT MR. FLETCHER SAID.

Editor of NATIONAL NURSERYMAN.

In your April issue at page 33, I am reported as saying that "80 per cent. of Canadian fruit trees were imported from the United States." This, of course, is not the case. The statement I made was that "Mr. Irving Rouse has told me that 80 per cent. of the surplus stock of American nurseries was shipped into Canada." My remarks were wrongly reported at the time and the statement has appeared in several places subsequently. By inserting this note you will oblige,

Very truly,

Ottawa, April 9, 1898. JAMES FLETCHER, Entomologist.

COMMISSIONS IN ENGLAND.

Replying to a correspondent in the *Horticultural Advertiser* Sydney S. Marshall, nurseryman and florist, Bognor, Sussex county, England, writes:

Your correspondent "Nurseryman," in discussing Gardeners' Commissions, has raised a very debatable subject. My own opinion is that commissions may be given with perfect propriety and without committing any breach of moral or civil law. If an agent buys in his master's interests and the nurseryman gives him a commission out of his own profit, there is no moral wrong, neither would any judge convict unless a conspiracy were proved to exist between the agent and the seller to defraud the buyer. If the nurseryman bribes the gardener to allow him to overcharge his master, we require no education from "Nurseryman" or anybody else to affirm that both are swindlers of the commonest type, and beyond redemption. I know gentlemen who consider their gardeners have a right to a commission, and would remove their custom if it were not paid. It is the method and not the principle that is at fault. Are nurserymen to be the only super-sensitive, ultra-moral and sanctimonious traders on the face of the globe? Is there a single business line worth having in any business that some trader or other is not perfectly willing and anxious to secure by paying a reasonable commission. Commissions are doubtless a nuisance, and so are weeds. When we can grow stock without weeds, we *may* (this is more than doubtful) sell it without paying commissions. In my opinion it is better to know what we are expected to do, and to do it, than to attempt a cure that will act only as in a suppressed fever, leave the disease in a more complex and dangerous form. Without commissions outsiders would come in, and with the energetic stores and "Universal Providers," laugh and grow fat on the good old antediluvian nurserymen, who would doubtless await the end with folded hands and complacent resignation. Commissions are in my opinion a commercial necessity, although it behooves every trader to get out of them as lightly as he can. Nurserymen are much more likely to ruin their trade by the broadcast distribution of trade catalogues and prices, by which they frequently lose 50 per cent., than to quibble at commissions. With this going on it is "to save at the spigot and let out at the bung-hole." I would sooner raise prices in earnest than play at reducing commissions.

STATE DOCUMENTS.

The following correspondence in the matter of the Canadian exclusion act, shows how the efforts of a single nurseryman caused the British ambassador and the Canadian Privy Council to make an explanation; and suggests that had there been more time or had there been concerted action among the leading nurserymen, the objects desired might have been attained:

DEPARTMENT OF STATE,
WASHINGTON. April 20, 1898. }

The Honorable James W. Wadsworth, House of Representatives:

SIR—Referring to your letter of the 31st ultimo, enclosing a letter from Mr. Irving Rouse, of Rochester, N. Y., relative to a bill passed by the Canadian Parliament prohibiting the entry into Canada of nursery stock from the United States; and with regard to the department's reply thereto of the 2d instant, I have the honor, by direction of the secretary of state, to inclose for your information copy of a note from the British ambassador at this capital, transmitting a copy of an approved minute of the Canadian privy council, explaining the circumstances which led to the enactment and representing that present circumstances do not admit of any modifications of the provisions of the law in question.

Respectfully yours,

WILLIAM R. DAY, Assistant Secretary.

Enclosure:

From Sir Julian Pauncefote, April 15, 1898.

WASHINGTON, D. C., April 15, 1898.

The Hon. John Sherman, Secretary of State, etc.:

SIR—With reference to the three notes from your department, Nos. 957, 963 and 971, of the 25th ultimo, 2d and 8th instant respectively, concerning the Canadian act prohibiting the entry into the Dominion of nursery stock from the United States, I have the honor to transmit herewith copy of an approved minute of the Privy Council, which has been sent to me by the Governor General of Canada.

This minute explains the considerations which led to the enactment of the measure in question, and represents that present circumstances do not admit of any modifications of its provisions.

In communicating to you the enclosed, I have the honor to express my regret that, for the reason therein stated, it has not been possible to obtain the relief asked for.

I have the honor to be with the highest consideration, sir,

Your most obedient humble servant,

JULIAN PAUNCEFOTE.

The extract from a report of the committee of the Privy Council, concludes as follows:

That the provincial government of Ontario recognizing the serious nature of this pest, has passed legislation with a view to its eradication, which it is confidently believed, will soon be accomplished if no further introduction of the pest from abroad occurs.

That so important was immediate action for the protection of Canada's most important fruit industry, and so numerous were demands from fruit-growers, fruit-growers' associations and others in all fruit growing sections of the Dominion, that the members of both houses of parliament, upon the introduction of the bill, suspended the rules of the house, and passed the bill at once.

That this was done with the full knowledge that a number of Canadians would suffer in consequence of the sudden prohibition of all nursery stock, they having been agents for the distribution of this stock, and in many cases having been paid for it in advance.

That the results of the act were referred to on a subsequent date in the house of commons, and the members evinced a strong determination not to recede in any particular from their action in passing the bill.

The minister, under the circumstances is unable to recommend that for the present any modification be made to the provisions of the "San Jose Scale Act."

The committee of the privy council, on the recommendation of the minister of agriculture advise that your excellency be pleased to submit an answer, in the sense of this minute to his excellency her majesty's ambassador to the United States.

All which is respectfully submitted for your excellency's approval.

JOHN J. MCGEE, Clerk of the Privy Council.

NEW YORK SCALE LAW.

The New York State bill for the regulation of the San Jose scale was passed by both senate and assembly, and was sent to Governor Black for his approval. The bill was drawn by President Irving Rouse of the American Association of Nurserymen and member of the executive committee of the Eastern Nurserymen's Association, and William Pitkin, secretary and treasurer of the Eastern Association. These gentlemen with S. D. Willard, of Geneva, and C. M. Hooker, of Rochester, went to Albany and secured the passage of the bill.

In view of the delay in the passage of the federal bill, however, it was thought advisable by President W. C. Barry of the Eastern Association and Messrs. Rouse and Pitkin to delay action on the state bill pending the disposition of the federal bill, for as will be seen by the text of the New York State bill herewith appended, it is based upon and made subsidiary to the federal bill. Therefore through Senator Parsons and by direct application to Governor Black the latter promised to withhold his signature until action should be taken on the bill at Washington. On April 30th at a meeting of the Eastern Nurserymen's Association it was decided to allow the bill to become a law. Word was sent to Albany and Governor Black promptly signed the bill. Following is a summary of the New York State law, which is unlike that of any other state bill or law on the scale:

The act amends the agricultural act of 1895. Persons becoming aware of the existence of San Jose scale or other insect pest or plant disease shall report the fact to the commissioner of agriculture at Albany who shall send an agent to do what is necessary to extirpate or prevent the spread of the insects or disease. Unless each nursery has been inspected by a federal officer the same year, the commissioner must cause it to be examined once each year prior to September 1st. If the trees and plants therein are free from insect or disease, a certificate to that effect must be issued to the owner of the nursery.

Should a nurseryman send out or deliver within the state nursery stock subject to the attack of injurious diseases or insects without a certificate up to date or deface or destroy such certificate or wrongfully be in possession of it, he shall be deemed guilty of a misdemeanor.

A certificate issued by an official of the United States shall be accepted in lieu of state inspection.

The act also provides as follows:

"If in the judgment of the said commissioner of agriculture or the persons representing him, the trees, shrubs or other plants should be entirely destroyed, then such destruction shall be carried on and completed under the supervision of the commissioner of agriculture, or the person or persons duly appointed by him, without unnecessary delay, but the owner of the trees shall be notified immediately, upon its being determined that they must be destroyed, by a written notice signed by such commissioner, or the person representing him and left at his usual place of residence, or if not a resident of the town by leaving the notice with the person in charge of the premises, trees or fruit or in whose possession they may be. Such notice shall contain a brief statement of the facts found to exist, whereby it is deemed necessary to destroy said trees, shrubs or other plants, and shall call attention to the law under which it is proposed to destroy them. In case of objection to the findings of the inspector or agent of the commissioner of agricul-

ture, an appeal shall be made to said commissioner, whose decision shall be final; an appeal must be taken within three days from service of said notice, and shall act as a stay of proceedings until it is heard and decided.

"When the commissioner of agriculture or the person or persons appointed by him shall determine that any tree or trees, shrubs or other plants must be treated or destroyed, forthwith he may employ all necessary assistants for that purpose, and such person or persons, agent or agents, employee or employees may enter any or all premises in any town or city necessary for the purpose of such treatment, removal and destruction.

"Section eighty-four of said chapter three hundred and thirty-eight of the laws of eighteen hundred and ninety-three is hereby repealed.

"The provisions of this act shall not apply to florists' greenhouse plants, flowers and cuttings, commonly known as greenhouse stock.

"This act shall take effect June first, eighteen hundred and ninety-eight."

Imports of nursery stock during last five years: \$137,503; \$124,143; \$632,523; \$955,307; \$963,977; exports, \$74,663 \$140,415; \$129,551; \$133,735; \$135,047.

Andre L. Causse, New York, agent for Andre Leroy Nurseries, Angers, France, announces that he can supply the trade with first class, well graded fruit and ornamental seedlings at lowest market prices.

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LARGE
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FLOWERING SHRUBS in great variety. Descriptive Catalogue
and Price-List free.

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FOR GROWERS AND DEALERS IN NURSERY STOCK.

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VOL. VI.

ROCHESTER, N. Y., JUNE, 1898.

No. 5.

THE STANDARD FRUITS.

Little Systematic Work Has Been Attempted with Apples and Pears, Says an English Pomologist—The Bulk of Cultivated Apples Are Chance Seedlings, He Says—Examples.

It is remarkable that in an age when hybridising and cross-breeding amongst plants have been so closely and successfully followed up by observant horticulturists, very little systematic work has been attempted with apples or pears says a writer in *Gardners' Chronicle*, of London, England. It has been said by such veterans as John Laing that they regretted that they had not given attention to the improvements of our standard fruits in the earlier days, so that they might have had a chance of seeing the result of their labors. But there are many plants which take far longer than apples or pears before the operator can prove whether his efforts have yielded substantial improvements. It is quite possible to obtain fruit within five years of the time of sowing, and in some cases a less time than this will elapse before fruit is produced, though it takes longer to prove a variety thoroughly, especially those which do not appear satisfactory at first, as they occasionally improve greatly as the plants gain strength. Seedling apples will make a growth of from 1 foot to 2½ feet in a season, and if this be well matured by exposure to the sun it can be utilized as scions for grafting on Paradise stocks the following March. Under favorable circumstances, strong scions will produce a few fruits the second season from grafting, this being the fourth year from the seed, and I have even known them do so in the second year of the scion, but they are rarely strong enough to stand the strain, becoming stunted and barren for several seasons afterwards.

CROSSING TWO VARIETIES.

Very few apples of proved merit are known to have resulted from crossing two varieties—in fact, it is doubtful if a dozen could be named of which the parentage has been known to the raiser and made public. Thomas Andrew Knight, the celebrated president of the Royal Horticultural Society, early in the present century, was most systematic in his work, and he has left the records of most of his seedlings. The best known of these are the following: Bringewood Pippin, from Golden Pippin crossed with Golden Harvey; Downton Pippin, from the Isle of Wight Pippin crossed with Golden Pippin; and the Red and Yellow Ingestre from Orange Pippin crossed with Golden Pippin. Downton Pippin was at one time a fairly popular apple, and its name was frequently applied to other and less useful sorts in the shops, just as Ribston Pippin is now often employed to designate very different apples. A west of London fruiterer in a large business at one time made a practice of giving the name Downton Pippin to every small apple he was uncertain about. It is now rarely seen in gardens, orchards, or nurseries, though it is one of the few apples that is useful for dessert and cider too. The Red and Yellow Ingestre are most interesting varieties from the fact that they

originated from two seeds taken from the same cell in the fruit which resulted from the cross-fertilization recorded. The “Red” variety is not so generally known as the “Yellow,” which is a valued occupant of numberless gardens, but the former is still included in the catalogues of a few nurserymen, especially in the west of England.

CHANCE SEEDLINGS.

As regards the bulk of apples in cultivation, some valuable, and many comparatively worthless, all are practically chance seedlings, the seed-parents of which are not even recorded. Taking as an example the celebrated variety first named, *i. e.*, Ribston Pippin, one of the oldest apples known in England, it is recorded concerning it that “pips were brought from Rouen in 1688 and sown at Ribston House, Knaresborough,” and from one of these it is supposed the apple originated; but even this is not a certainty, though the place of origin is beyond dispute. Another equally noted variety, though with a shorter history, Blenheim Orange Pippin, which was raised at Woodstock in Oxfordshire, probably towards the close of the eighteenth century, is of unknown parentage, nor have we any definite record that any variety sufficiently like it to be of the same probable origin has ever been raised from an intentional cross. It is the opinion of some who have given attention to the matter in the district, that many seedlings were subsequently raised from the original tree, and that to these we owe the varied form of Blenheim seen in gardens or orchards. If this could be substantiated it would be a highly interesting fact, as indicating the possibility of a well-fixed variety perpetuating its characters in seedlings; unfortunately, we have no evidence in the case of Blenheim Orange that this has since been accomplished, nor is it the case with the Ribston, for the only result known from this apple, *i. e.*, Cox's Orange Pippin, is distinct from its parent in nearly all its characters except its high quality. I have raised scores of seedlings from both these apples, and have never succeeded in procuring any approach to a reproduction of the parent qualities. Another very distinct apple, the Devonshire Quarrenden, has been cultivated in this country for over 200 years, yet nothing whatever is known of its origin, nor am I aware that any seedlings have ever been raised partaking of its characters in a notable degree. It is true we now have the “Winter Quarrenden,” but though this was first shown as Stubbs' Seedling, it is not stated that it was a seedling from Devonshire Quarrenden.

RAPID RETROGRESSION.

Although the flowers of apples are, as regards the majority of varieties, particularly adapted for cross-fertilisation, owing to the numerous stamens not all being mature at the same time, and to the position of the respective organs, and while this is undoubtedly effected in nearly every case, yet so great is the disturbance due apparently to long cultivation that the variability of the seedlings is remarkable. It is surprising, too, how rapid is the retrogression, for it is not uncommon in one batch of seedlings raised from seed yielded by the fruit of

one tree (say Blenheim Orange, for instance) to have several forms that are but slightly removed from the Crab type in size and quality of fruit. According to my observations, a great majority of seedlings from self-fertilised fruits are absolutely worthless, and it may be taken generally that at least ninety per cent. are inferior to the parent. Even with the most careful and systematic crossing, the percentage of seedlings showing valuable characters is small, but this is the only method which should be pursued now by those desirous of improving our fruits.

It is true that as regards apples, the varieties are so numerous that there does not appear to be much room for additions, yet in certain directions useful work could yet be done. For example, late-keeping dessert apples of high quality, which combine vigor of habit with free-bearing properties and hardiness, will always be in demand because they are never too numerous. Dessert, or culinary apples, that mature their fruits early in the season, require improvement in their keeping qualities, and a really good early apple that could be kept without serious deterioration for two or three months would be an acquisition. Then, in the direction of strengthening the flowers of apples, and increasing their power of resisting frost, there is a great field open for the investigator, and one that should well pay for exploring. It is well known that the flowers of various apples differ materially in size and substance, time of expansion, hardiness, and in what may be termed staminate or pistillate vitality, fitting them for regular fertilisation, yet we have scarcely any systematic records to refer to, and few methodical attempts have been made to utilize these characters in cross-breeding.

OMAHA EXPOSITION.

The managers of the Trans-Mississippi Exposition have issued handsomely engraved invitations for the opening day's ceremonies to the national state and municipal officers, to officials of former expositions and to the press generally.

The procession from the city to the grounds will be imposing, headed by the United States Marine Band, which President McKinley has permitted to visit the exposition for two weeks. The President will transmit by telephone a message of greeting and congratulation. The opening will be at noon on June 1st.

The buildings are nearly completed, and already large consignments of exhibits are being received preparatory to their arrangement in their respective departments. While not so extensive as the World's Columbian Exposition at Chicago in 1893, the buildings and grounds are a city in themselves, and all the attractive features of the great Chicago spectacle, including Moorish palaces, harems and Midway Plaisance will be reproduced. There is an army of men at work in and about the exposition buildings. A new railroad station and a new postoffice have been erected, and there is much construction going on preparatory to the accommodation and comfort of the crowds of visitors expected.

Nearly all the states are to participate, and many state buildings have been erected. The style of architecture is much the same as at the Columbian Exposition. The lagoon facade has a circular dome, one hundred and fifty feet in circumference, rising to a height of seventy-five feet. The dome

is supported on a circular row of fluted Ionic columns, the enclosed space and under the dome is open.

The United States government exhibit will far excel, it is said, that made at any former exposition. The cost of the building alone is \$70,000. A fund of \$10,000 has been raised by California to defray the expense of fruit exhibit, including fruits, nuts, wines and other natural productions. Canada has taken 4,000 square feet of space in International Hall and will exhibit agricultural, manufactured and mineral products. The railroads have already signed over \$125,000, and more is partially promised.

From the mint at Philadelphia, medals are to be turned out, 50,000, 100,000, or whatever number is wanted, to be sold at the exposition. On one side of the medal will be a composite portrait from photograph of some of the beautiful women west of the Mississippi river. On the other side there will be illustrated a mounted Indian killing a buffalo. The contrast is to indicate the progress in civilization that half a century has brought about.

TRADE MARK FOR FRUITS.

"Is there any such a thing as securing a trademark on new fruits, so as to keep others from budding or grafting them?" asks a correspondent of the *Rural New Yorker*. "I am told that one can't sell such fruits under the trademark name, but can grow as many as desired," and Edwin Hoyt, New Canaan, Conn., answers:

"There is a difference of opinion on this subject. Rowland Cox, of New York City, one of the most eminent trademark lawyers in the city, says that a trademark may be used for protection for a vine or plant. Judge Wales says: The protection of a trademark cannot be obtained for an organic article which, by the law of its nature, is reproductive, and derives its chief value from its innate vital powers independently of the care, management or ingenuity of man. In the absence of a special contract between the parties, what is to prevent the buyer from cultivating the vine or plant, and selling its product, whether of wood or of fruit, under the name of the parent stock? Certainly not a trademark. Whether some other judge might think differently or not, I cannot say. One eminent trademark lawyer, you see, says that a trademark can be used for the protection of a name of a vine or plant, and another eminent judge says that it cannot be so used. I would not, however, advise one to spend much money in trying to protect the name of any new fruit, until a law is made for this special purpose."

EFFECT OF STOCK ON SCION.

An instance of the effect of stock upon scion is narrated in a report recently sent out by the French Academy of Sciences. Two pear trees of the same variety, standing side by side, one grafted on a pear seedling and the other on a quince, bore fruit for a number of years. That from the pear stock was green, while that from the quince stock was a golden yellow with a rose blush on the side towards the sun. The latter also weighed a third more per specimen, was more dense in both fruit and juice, and was richer in both acid and sugar.

SOME PRACTICAL RESULTS.

*Inspection of Nurseries and the Treatment of Nursery Stock—
Young Grafts May be Sprayed with Green Arsenite—Experi-
ments with Plant Lice—Methods of Fumigation.*

Victor H. Lowe of the New York Experiment Station has prepared a bulletin on the inspection of nurseries and the treatment of nursery stock. What he says of the New York nurseries will apply in a general way to those of other states. He makes the following brief summary of his investigations:

Most of the nurseries inspected have been found practically free from insect pests of a serious nature. Ten important species have been found at different times, however, in sufficient numbers to do serious injury. In all cases efforts were at once made to clean out the stock thus infested. The most important insect which attacks nursery stock in this state is the San Jose scale. It is important to nurserymen not only because of the injury which it may do to the infested stock, but because it is greatly dreaded by both dealers and fruit growers alike. Hence stock from a nursery which is known to have been once infested, does not find a ready sale.

Experiments in dipping and spraying young nursery trees indicate that plant lice may be controlled in the nursery by dipping the curled tips of infested trees in a solution of whale oil soap, 1 pound to 7 gallons of water. The work should be done early in the season. Flea beetles attacking young pear and apple trees may be held in check by spraying with green arsenite, 1 pound to 100 gallons of water, and the canker worm will succumb to the same treatment.

The experiments in fumigating nursery stock with hydrocyanic acid gas, when the stock is piled in the cellar for winter storage, indicate that this method may prove practical, thus avoiding the necessity of building special fumigating houses.

PLANT LICE.

Regarding treatment of plant lice Mr. Lowe says:

The injury was usually caused to seedling and one-year-old fruit trees. The lice attacked the tender leaves at the tips of the young trees soon causing them to curl so badly that the insects could not be reached with a spray. In the nursery in which the experiments were made the infested trees, principally sweet cherry, apple and pear trees, showed serious injury from the effects of the lice. The experiments were undertaken with a view to determining a practical method of checking the injurious work of the lice. It was evident that spraying would not be a success and so dipping the infested trees in a solution of whale oil soap and water was resorted to. It might at first seem that this method would be impractical because of the time and labor involved, but it should be remembered that the lice appear on comparatively few trees first, others becoming infested from these later in the season, and hence if they are successfully treated more serious injury by the lice may be prevented.

All of the trees used in the experiments were seedlings, one-year-olds and two-year olds. As the lice were congregated on the leaves at the tips it was necessary to wet only this portion of the tree. The dipping of the stock was found to be a very simple matter. Three or four men carrying pails filled with the solution passed through the blocks and, picking out the infested trees, bent them over carefully and dipped their tips into the solution taking care to hold them long enough to wet

all of the lice. It was found unnecessary to spend more than two minutes to a tree.

EXPERIMENTS.—About a thousand trees were used in experiments, which for convenience may be divided into six blocks. Blocks I and II were sweet cherries badly infested with the black cherry aphid, *Myzus cerasi*. Blocks III and IV were apples also badly infested, but with the apple aphid, *Aphis mali*. Blocks V and VI were standard pears infested with a species of plant lice, *Aphis* sp. Blocks I, III and V were treated the same day, a bright, warm day about the middle of July, with a solution of whale oil soap, 1 pound to 3 gallons of water. Blocks II, IV, and VI were treated within two days of this time, under practically the same weather conditions, with a solution of whale oil soap, 1 pound to 7 gallons of water. But one application was made in each case.

RESULTS.—In nearly every case where the stronger soap solution, 1 pound to 3 gallons, was used, the leaves were more or less injured. The pears were injured most, while there was not much difference between the apples and cherries. So far as could be ascertained, all of the lice on these trees were killed. The weaker solution, 1 pound to 7 gallons, did not injure the foliage in any instance, but proved fully as effectual as the stronger solution in killing the lice. These treated trees were not seriously infested again during the season.

CONCLUSIONS.—The above experiments indicate that, when young nursery trees become so badly infested with plant lice as to make spraying impractical, they may be successfully treated by dipping the curled tips in a solution of whale oil soap, 1 pound to 7 gallons of water. The expense and labor were so slight as to be factors of but little importance. When thoroughly done, but one treatment is necessary under ordinary circumstances.

SPRAYING YOUNG GRAFTS.

Most of these experiments were conducted against a large species of flea beetle, *Systema hudsonias* Forst. The beetles were very abundant during June and July on apple and pear grafts in a nursery near the station. The beetles fed voraciously on both upper and under surfaces of the leaves, eating away the tender tissue and causing them to wither and die. About twenty-five per cent. of the grafts were killed before the experiments were commenced and a whole block of 20,000 apple grafts was seriously threatened. The beetles were also doing serious injury in a small block of two-year-old apples and a larger block of two-year-old pears in the same nursery. Green arsenite was used in all the experiments and in each case sufficient lime was used to make the mixture "milky" in appearance. A barrel and pump, mounted on a small stone boat which could be easily hauled between the rows by one horse, was used. To each lead of hose a V was attached so as to support two short lengths of hose. Two men followed the pump spraying two rows at a time, thus requiring three men to do the work. Improved Vermorel nozzles were used.

EXPERIMENTS.—Block I; one-year-old apple grafts sprayed June 16, with green arsenite, 1 pound to 150 gallons of water. June 18 this block was again sprayed but the poison was used at a strength of 1 pound to 100 gallons of water. June 25 a third application was made, the poison being used at the same strength. Block II; two-year-old apple trees sprayed June 18 and again June 25, with green arsenite, 1 pound to 100 gallons of water. Block III; two-year-old pear trees sprayed June 18 and again June 25 with green arsenite as in Block II. Block

IV; one-year-old apple grafts badly infested with canker worms. This block was sprayed early in June with the green arsenite, 1 pound to 100 gallons of water. A second application of the poison was unnecessary.

RESULTS.—The green arsenite at 1 pound to 150 gallons of water had but little effect on the beetles. Where the stronger mixture was applied the effect was very apparent, after the second application. But few live beetles could be found, and after the third application no further injury to the stock was noticed. Although most of the spraying was done on a bright warm day, the most tender leaves did not show the slightest indications of having been burned by the green arsenite. Block IV was freed from canker worms by one application of the poison at the strength stated.

CONCLUSIONS.—While these experiments should be carried further before final conclusions are reached, the results indicate that young grafts may be safely sprayed with the green arsenite, 1 pound to 100 gallons of water, provided enough lime is added to give the mixture a "milky" appearance. It may here be stated that it is important to add the lime as it not only makes the mixture spread and adhere to the leaf better, but prevents burning the foliage.

SPRAYING CUT-LEAVED BIRCH.

These trees constituted a small block in one of the Geneva nurseries. Nearly all of the trees were badly infested with thrips. These are very small, almost microscopic insects which feed on the soft parts of the leaves soon causing them to wither and die. They are frequently very injurious, and are well known to both gardeners and fruit growers. They are hard to reach with insecticides as they fly away as soon as disturbed by the spray mixture. The trees in question were beginning to show the injury which the insects were causing before spraying was done. In all cases much pains was taken to wet both upper and under surfaces of the leaves.

EXPERIMENTS.—About the middle of June the block was sprayed with a solution of whale oil soap, 1 pound to 7 gallons of water. After waiting two days no beneficial results were apparent. The block was again sprayed with whale oil soap, 1 pound to 4 gallons of water. This had the effect of keeping the insects away for a few days but injured the foliage slightly during one or two warm bright days which followed the application of the soap. In about six days from this last application the trees were again sprayed, this time with whale oil soap, 1 pound to 7 gallons of water, with the addition of flowers of sulphur, 1 oz. to each gallon of solution. This proved much more effectual than either of the other applications. Another application of the soap solution with the sulphur added was made a week later. Although this species of thrips continued abundant throughout the season on other ornamentals in the immediate vicinity of the block of birch, no further injury of a serious nature resulted to the sprayed trees.

CONCLUSIONS.—These experiments indicate that thrips can be held in check by a whale oil soap solution, 1 pound to 7 gallons of water, with the addition of 1 oz. of flowers of sulphur to each gallon of the solution when attacking trees similar to the cut-leaved birch. It should be remembered that it is important that the leaves should be drenched on both upper and under surfaces.

Experiments for the fumigation of nursery stock have only just begun. Fumigating nursery stock is usually done

for the purpose of killing San Jose scale. If fumigation can be made practical in the large cellars used by nurserymen it will be an inexpensive way to treat a large amount of stock, and a preventive to the spread not only of the San Jose scale, but other insects such as the woolly aphis, bud moth, pistol-case-bearer and other injurious species. Experiments along this line are being conducted in the insectary at the Station and in one of the large frost proof cellars of the Chase Brothers Nursery Co., at Rochester. The cellar is 80 ft. long, 40 ft. wide and 16 ft. high. This was filled with fruit trees of all varieties and fumigated with hydrocyanic acid gas. Before the gas was generated, twigs infested with the woolly aphis and the pistol-case-bearer were placed in different parts of the cellar including the remotest parts and under some of the piles of trees. The trees were exposed all night, 14 hours. The temperature in the cellar was a little above freezing. The twigs were carefully examined and all of the lice were dead. The pistol-case-bearers are apparently dead, but are being kept in the insectary awaiting results when it becomes time for them to revive.

Obituary.

Dr. Joseph Albert Lintner, state entomologist of New York, died May 5th, at Rome, Italy. He had been curator of the entomological department of the New York State Museum since 1868, and state entomologist since the creation of that office in 1880. Dr. Lintner was born in Schoharie County, on February 8, 1882, and was graduated from Schoharie Academy in 1837. Up to 1867 he was engaged in mercantile pursuits. Then he became zoological assistant in the New York State Museum of Natural History. Dr. Lintner was a member of a score or more of scientific associations in the United States and Europe; had been president of the department of natural science in the Albany Institute since 1879; was for two years president of the Entomological Club of the American Association for the Advancement of Science; and was made Ph. D. by the Regents of the University in 1884. His publications on economic entomology were voluminous and were extensively copied in both American and European scientific journals. It was he who discovered the clover midget and clover beetle. His scientific papers down to July, 1887, number 413. Officially he published "Report on the Injurious and Other Insects of the State of New York," and "Report of the State Entomologist."

By the death of the Hon. James F. C. Hyde, which occurred on May 1, at his home in Newton, Mass., the state lost a very prominent agriculturist and horticulturist. Mr. Hyde was born in what is now Newton Highlands, more than seventy years ago. After graduating from school he was associated with his father in the nursery business for some time. He served for a number of years on the State Board of Agriculture, and was for four years president of the Massachusetts Horticultural Society. When a young man Mr. Hyde interested himself in politics and when Newton became a city, to him was entrusted the honor of being its first mayor. He was very widely respected and revered by his townspeople.

Alpheus Truett, nurseryman, died at Franklin, Tenn., May 2d, aged seventy-four years.

Edmund H. Hart, a well-known writer on sub-tropical horticulture died at Federal Point, Fla., April 22d.

SPRAY CALENDAR.

The following directions regarding spraying, prepared by the late Professor E. G. Lodeman and revised by H. P. Gould, have been issued by the horticultural division of the Cornell Experiment Station, Ithaca, N. Y.:

APPLE.—*Scab*. (1. Copper sulphate solution before buds break). 2. Bordeaux mixture when leaf buds are open, but before flower buds expand. 3. Repeat 2 as soon as blossoms have fallen. 4. Bordeaux mixture 10 to 14 days after the third. (5-6. Repeat 4 at intervals of about two weeks).—*Canker Worm*. 1. When first caterpillars appear apply Paris green very thoroughly. 2. Repeat 1 after 8 to 10 days. (3-4. Repeat every 10 days if necessary).—*Bud-moth*. 1. As soon as leaf tips appear in buds, Paris green. 2. Repeat 1 before the blossom buds open. (3. Repeat 2 when blossoms have fallen).—*Codling-moth*. 1. Paris green immediately after blossoms have fallen. 2. Repeat 1, 7 to 10 days later. (3-4. Paris green at intervals of 1 to 3 weeks after 2, especially if later broods are troublesome). Paris green may be added to the Bordeaux mixture and the two applied together with excellent effect. *Case-bearer*. As for *bud moth*. *San Jose scale*. Apply whale-oil soap, 2 lbs. to a gallon of water, when trees are dormant, or kerosene and water in proportion of 1 to 4. Apply latter preferably in spring.

CHERRY.—*Black-knot*. See plum.—*Rot*. 1. When buds break, Bordeaux mixture. 2. When fruit has set, repeat 1. 3. When fruit is grown, ammoniacal copper carbonate.—*Aphis*. 1. Kerosene emulsion when insects appear. 2-3. Repeat at intervals of 3 to 4 days if necessary.—*Slug*. 1. When insects appear, arsenites, hellebore or air-slaked lime. 2-3. Repeat 1 in 10 to 14 days if necessary.

CURRENT.—*Leaf-blight*. 1. When injury first appears, before the fruit is harvested, ammoniacal copper carbonate, to avoid staining the fruit. 2. After fruit is harvested, Bordeaux mixture freely applied. 3. Repeat 2 when necessary.—*Worm*. 1. When first larvæ appear, arsenites. 2. Repeat 1 when necessary until fruit is half grown. 3. Use hellebore if any worms remain after fruit is half grown.

GOOSEBERRY.—*Mildew*. 1. Before buds break, Bordeaux mixture. 2. When first leaves have expanded, potassium sulphide. 3-4, etc. Repeat 2 at intervals of 7 to 10 days, if necessary throughout the summer. *Current Worm*, see under currant.

GRAPE.—*Anthracnose*. 1. Before buds break in spring, sulphate of iron and sulphuric acid solution. 2. Repeat 1 after 3 or 4 days to cover untreated portions.—*Black-rot*. (1. As soon as first leaves are fully expanded, Bordeaux mixture). 2. After fruit has set, Bordeaux mixture. 3. Repeat 2 at intervals of 2 to 3 three weeks until fruit is $\frac{3}{4}$ grown. 4. Ammoniacal copper carbonate when fruit is nearly grown. 5-6, etc. Repeat 4 at intervals of 7 to 14 days as required.—*Downey mildew*, *Powdery mildew*, the first application recommended under *Black-rot* is of especial importance. *Ripe-rot*, apply very thoroughly the later applications recommended under *Black-rot*.—*Steely-bug*. 1. As buds are swelling, arsenites. 2. After 10 to 14 days, repeat 1.

NURSERY STOCK.—*Fungous diseases*. 1. When first leaves appear, Bordeaux mixture. 2-3, etc. Repeat 1 at intervals of 10 to 14 days to keep foliage well covered.

PEACH, NECTARINE, APRICOT.—*Brown-rot*. Before buds swell, copper sulphate solution. (2. Before flowers open, Bordeaux mixture). 3. When fruit has set, repeat 2. 4. Repeat after 10 to 14 days. 5. When fruit is nearly grown, ammoniacal copper carbonate. 6-7, etc. Repeat 5 at intervals of 5 to 7 days if necessary.

PEAR.—*Blight*. 1. Cut out all affected branches in fall before leaves drop. 2. Repeat 1 whenever necessary during growing season. All branches should be cut 6 to 10 inches below point of infection. *Leaf-blight or Fruit-spot*. *Leaf-spot*. 1. Before blossoms open, Bordeaux mixture. 2. After blossoms have fallen, repeat 1. 3-4, etc. Repeat 1 at intervals of 2 to 3 weeks as appears necessary. For *Leaf-spot* in detail see Bulletin 145. *Scab* see under apple.—*Leaf-blister*. 1. Before buds swell in spring, kerosene emulsion, diluted 5 to 7 times.—*Psylla*. 1. When first leaves have unfolded in spring, kerosene emulsion diluted 15 times or whale-oil soap, 1 lb. to 10 gallons of water. 2-3, etc. At intervals of 2 to 6 days, repeat 1 until the insects are destroyed.—*Slug*. See under cherry.—*San Jose scale*, *Codling-moth*. See under apple.

PLUM.—*Brown-rot*. See under peach.—*Leaf-blight*. (1. When first leaves have unfolded, Bordeaux mixture). 2. When fruit has set, Bordeaux mixture. 3-4, etc. Repeat 2 at intervals of 2 to 3 weeks, use a clear fungicide after fruit is $\frac{3}{4}$ grown.—*Black-knot*. 1. During first warm days of early spring, Bordeaux mixture. 2. Repeat 1 when buds are swelling. 3. During latter part of May, repeat 1. 4. Repeat 1 during middle of June. (5. Repeat 1 in July). See Bulletin 81.—*Curculio*, spraying is not always satisfactory; jar the trees after fruit has set, at intervals of 1 to 3 days during 2 to 5 weeks. *Plum scale*. 1. In autumn when leaves have fallen, kerosene emulsion, diluted 4 times. 2-3. In spring, before buds open, repeat 1. See Bulletin 108.—*San Jose scale*. See under apple.

QUINCE.—*Leaf-blight or fruit-spot*. (1. When blossom buds appear, Bordeaux mixture). 2. When fruit has set, repeat 1. 3-4, etc. Repeat 1 at intervals of two weeks, until fruit is $\frac{3}{4}$ grown; if latter treatments are necessary, ammoniacal copper carbonate.

RASPBERRY, BLACKBERRY, DEWBERRY.—*Anthracnose*. 1. Before buds break copper sulphate solution, also cut out badly infested canes. 2. When growth has commenced, Bordeaux mixture. 3-4, etc. Repeat 2 at intervals of 1 to 3 weeks, avoid staining fruit by use of clear fungicide (Partially successful).—*Orange-rust*. Remove and destroy affected plants as soon as discovered.—*Saw-fly*. 1. When first leaves have expanded, arsenites. 2. After 2 to 3 weeks repeat 1, or apply kerosene emulsion (unsatisfactory).

ROSE.—*Black-spot*. Spray plants once a week with ammoniacal copper carbonate.—*Mildew*. Keep heating pipes painted with equal parts lime and sulphur mixed with water to form a thin paste. Spray with copper fungicides.—*Aphis*, *Leaf-hopper*. Kerosene emulsion, or tobacco water applied to the insects' bodies at short intervals is effective.—*Red spider*. Apply fine spray of water to the foliage; keep house as damp as possible without injury to plants.

STRAWBERRY.—*Leaf-blight*, *Mildew*. 1. When growth begins in spring, Bordeaux mixture. 2. When first fruits are setting repeat 1. 3. After fruiting, or on non bearing plants, Bordeaux mixture at intervals of 1 to 3 weeks.—*Saw-fly*. Spray plants when not in bearing with arsenites, repeating application if necessary.

FORMULAS.

The Cornell Experiment Station gives the following formulas for spraying applications:

PARIS GREEN.—Paris green, 1 pound; water, 150-300 gallons. If this mixture is to be used upon fruit trees, 1 pound of quicklime should be added, and repeated applications will injure most foliage, unless the lime is used. *Paris Green and Bordeaux mixture can be applied together with perfect safety*. Use at the rate of 4 ounces of the arsenites to 50 gallons of the mixture. The action of neither is weakened, and the Paris green loses all caustic properties. For insects which chew.

NORMAL OR 1.6 PER CENT. BORDEAUX MIXTURE.—Copper sulphate (blue vitriol), 6 pounds; quicklime (good stone lime), 4 pounds; water, 50 gallons. Dissolve the copper sulphate by putting it in a bag of coarse cloth and hanging this in a vessel containing 4 to 6 gallons of water. Use an *earthen or wooden vessel*. After the copper sulphate is dissolved, dilute with water to 25 gallons. Slake the lime and add 25 gallons of water. Mix the two and keep thoroughly stirred while using. If the mixture is to be used on peach foliage it is desirable to add two pounds of lime in the above formula. When applied to such plants as carnations or cabbages it will adhere better if about a pound of hard soap be dissolved in hot water and added to the mixture. For rots, moulds, mildews, and all fungous diseases.

IRON SULPHATE AND SULPHURIC ACID SOLUTION.—Water (hot), 100 parts; iron sulphate, as much as the water will dissolve; sulphuric acid (commercial), 1 part. The solution should be prepared just before using. Add the acid to the crystals, and then pour on the water. Valuable for grape anthracnose, the dormant vines being treated by means of sponges or brushes.

AMMONIACAL COPPER CARBONATE.—Copper carbonate, 5 ounces; ammonia (26° Beaune), 3 pints; water, 45 gallons. Make a paste of the copper carbonate with a little water. Dilute the ammonia with 7 or 8 volumes of water. Add the paste to the diluted ammonia and stir

until dissolved. Add enough water to make 45 gallons. Allow it to settle and use only the clear blue liquid. This mixture loses strength on standing.

COPPER SULPHATE SOLUTION.—Copper sulphate, 1 pound; water, 15-25 gallons. Dissolve the copper sulphate in the water, when it is ready for use. *This should never be applied to foliage, but must be used before the buds break.* For peaches and nectarines use 25 gallons of water. For fungous diseases.

LONDON PURPLE.—This is used in the same proportion as Paris green, but as it is more caustic it should be applied with two or three times its weight of lime, or with the Bordeaux mixture. The composition of London purple is variable, and unless good reasons exist for supposing that it contains as much arsenic as Paris green, use the latter poison. Do not use London purple on peach or plum trees unless considerable lime is added. For insects which chew.

POTASSIUM SULPHIDE SOLUTION.—Potassium sulphide (liver of sulphur), $\frac{1}{2}$ –1 ounce; water, 1 gallon. This preparation loses its strength upon standing; so should be made immediately before using. Particularly valuable for surface mildews.

HELLEBORE.—Fresh white hellebore, 1 ounce; water, 3 gallons. Apply when thoroughly mixed. This poison is not so energetic as the arsenites, and may be used a short time before the sprayed portions mature. For insects which chew.

KEROSENE EMULSION.—Hard soap, $\frac{1}{2}$ pound; boiling water, 1 gallon; kerosene, 2 gallons. Dissolve the soap in the water, and churn with a pump for 5–10 minutes. Dilute 4 to 25 times before applying. Use strong emulsion for all scale insects. For such insects as plant lice, mealy bugs, red spider, thrips, weaker preparations will prove effective. Cabbage worms, currant worms and all insects which have soft bodies, can also be successfully treated. It is advisable to make the emulsion shortly before it is used. *Kerosene and water* (suggested for San Jose scale) may be used in all cases where kerosene emulsion is mentioned. Dilute to the strength recommended for the emulsion in each case. It must be applied with a pump having a kerosene attachment.

TOBACCO WATER.—This solution may be prepared by placing tobacco stems in a water-tight vessel, and then covering them with hot water. Allow to stand several hours, dilute the liquor from 3 to 5 times and apply. For soft bodied insects.

THE BELGIAN NURSERYMAN.

Nothing in Belgium generally, and Ghent particularly, strikes the British stranger more forcibly than the high social status of horticulturists, both amateur and professional. Many notable Belgian horticulturists hold high rank by reason of their birth or merit, and we can find parallels to these at home. But over there the head gardener of any importance is treated like a count, provided his education is good—the general rule; and the nurseryman who has been diligent in business may not only stand before the king, but converse with him, while in his native town or suburb he is looked up to instead of being regarded as “merely the nurseryman.” Such men do not give themselves airs, they carry their honors modestly; you meet them at the banquet or raout with the Order of Leopold, or some other decoration in the buttonhole of their swallow-tail coat, and next day you find them at the garden or nursery with soft hat and blue blouse on, busy among the plants or in the office. Our national pride would probably not allow us to do this, and, perhaps, we should kick over the traces if honored in any way. So it may be these things are best as they are, through those sixty persons who can attach V. M. H. to their names have not given evidence of insanity as some considered they would after the conferment of the order.

Ghent itself is the centre of an extensive nursery trade, and in it and its suburbs there are over three hundred nursery establishments of varying size, some of them very large and well kept. In very few, however, is there any very large variety of plants cultivated, the general principle is special culture; and the chief subjects grown—grown well and in enormous quantities—are bays, palms (chiefly kentias), azaleas, araucarias, dracænas (largely *D. lineata* and varieties), anthuriums, and a few other aroids, and bromeliads (chiefly *nidulariums caraguats*, and *vriesias*). Huge ridge and furrow houses are now the order, and their contents are certainly wonderfully vigorous and well furnished. In a comparatively few establishments hard-wooded plants are largely cultivated, and in such are to be seen regiments of *Citrus sinensis*—the Otaheite orange, ficuses, aspidistras, and *Phormium tenax* and its variegated form. Whither go all these plants? is the question that naturally arises. They go north, south, east, and west; bays and big palms to Russia and Northern Germany; palms, araucarias, and anthuriums to our islands and many continental countries; azaleas go to almost every country in Europe, and so we might continue. Belgium does a large home trade in plants, but a vastly larger one abroad.

Among those Britishers who took part in or visited the Ghent Quinquennial, the London nurserymen figured largely. Ould Oireland was well represented by Messrs. More and Burbidge; Auld Reekie sent Professor Balfour, D. Laird, and D. Thomson, and perhaps some others. The Kers, pere et fils, went from Liverpool, and Kew sent its assistant curator and orchid expert. The horticultural pressmen were very evident.—*Gardeners' Magazine*.

BLACK PEACH APHIS IN NURSERY.

The Maryland Agricultural Experiment Station has just issued Bulletin No. 55, by Professor W. G. Johnson, state entomologist, giving an illustrated account of the black peach aphis, a species of plant louse which he says is doing great damage to young peach trees, planted this spring and last fall in orchards, and to young shooting buds in nurseries. In one instance this insect has already damaged it is said 100,000 trees in a nursery in the midst of a block of five hundred thousand. The same pest is also in the heart of another block of young peach which contains nearly fourteen hundred thousand trees and is doing very serious damage. It is also doing considerable damage to young orchards in the mountain districts of Western Maryland.

A brief account of the nature of this insect with the remedies for its suppression and control are given; kerosene emulsion properly diluted having been found the most economical and best remedy for its destruction.

A brief account of the law, with an exact copy appended, passed by the last general assembly for the suppression and control of insect pests and plant diseases in Maryland is given. The law has been summarized in the NATIONAL NURSERYMAN.

This bulletin is the first of a series issued in accordance with the recently passed law and is a timely one, giving general information on topics of considerable economic importance at this time. It will be mailed free of charge to any person upon application to the director of the experiment station or to Professor W. G. Johnson, state entomologist, College Park, Md.

DAVID BAIRD.

David Baird was born and has always resided in Millstone township, Monmouth Co., New Jersey. In 1841 he removed with his parents to the farm which is still his residence. He received the advantages of the common schools of the township, later becoming the pupil of O. R. Willis, Ph. D., at Hightstown, N. J., and last at the Freehold Institute, where it may be said he graduated. Following his marriage in 1852 he engaged in farming for a brief period, but having early in life developed a love for horticulture, he soon turned his attention to the growing of small fruits, being the first in this section to plant the Lawton, and later the Wilson Early blackberry extensively, the venture proving a decided success financially. In 1869 he added to his small fruit business the growing of other nursery products.

His establishment has been known to the trade for the last thirty years as "The Manalapan Fruit Farm and Nurseries."

The United States P. O. Department about one year ago established a post office at this point under the name of Baird, making it necessary to change the title to "Baird's Nurseries." The post office address is Baird, Monmouth Co., New Jersey. Mr. Baird still retains the management and ownership of the nurseries. He has long been a member of the American Association of Nurserymen, is a life member of the American Pomological Society, and a charter member of the New Jersey State Horticultural Society, being now its vice-president.

During the thirty years of his business and social relations with the trade, he concludes that pomology and horticulture have an influence upon the lives and aspirations of men to develop a character of honesty and integrity of purpose.

PLUM STOCKS.

J. W. Kerr, Denton, Md., the well-known plum-grower and nurseryman, in speaking of plum culture, at the winter meeting of the Pennsylvania Horticultural Society, made some important observations concerning plum stocks.

"In some respects," said he, "we are still in the alphabet of American plum culture. This is no less the situation scientifically than practically. Many puzzling problems bearing upon every feature of the business await solution.

"Take, first, the question of stocks upon which the trees are propagated; as it stands at the present, there is need of great improvement. In this important matter no progress has been made. The loudly-praised Marianna is in no particular any better than what I believe to be its legitimate parent, the Myrobolan. All our Marianna stocks are propagated from cuttings, a method more or less pernicious, as it robs them noticeably of that persistent vitality which characterizes stocks grown from seed. Where budding is employed in propagation

of stocks of the Myrobolan group, numerous instances of uncongeniality between them and many varieties of both native and Japan plum will be manifest after planting in the orchard.

"In my own experience, I have had hundreds of trees live until the extra draft incident to fruiting began; then lacing or binding at the junction of the bud and stock, followed by discoloration and dying of the bark at this point, soon killed the tops. In such cases, the stocks themselves throw up sprouts from points below. I am fully persuaded that, for this state (Pennsylvania) and southward, or in any locality where the peach tree survives the winter, one-year peach seedlings, root-grafted, are decidedly preferable to Marianna or any other strain of Myrobolan stocks. When root-grafted on peach, it is only a question of a few years for plum trees to supply and support themselves with their own roots thrown out above the union.

"This method, however, is objectionable to some extent with

some of the native plums, notably the Chickasaws and Wild Goose, the roots of which prefer to run near the surface, and are more or less troublesome on account of a tendency to send up suckers. As the interest in plums presents greater promise of permanency now than ever before, the question of stocks becomes more important. The ideal stock upon which to propagate plums for commercial orchards must be free from the annoying tendency to send up sprouts from the roots; it must be vigorous and hardy; and, quite as important, it must possess adaptability, so that it will conform to and unite freely with other buds or grafts inserted in it. Stocks grown from the seed of the Wayland group of native plums, if they do not entirely meet these requirements, approximate them more nearly than any others with which I have experimented. The future of plum-growing demands careful experiment and investigation on this line."



DAVID BAIRD.

INDEED A WONDERFUL CHERRY.

The Wisconsin *Agriculturist* publishes the following description of the "Wonderful October cherry," taken from the catalogue of a Wisconsin seed firm:

One of the greatest novelties of the age. We all know what fabulous prices the rich pay for the fruit out of season. Strawberries selling at \$5.00 a quart on Christmas day. Peaches \$1.00 each on Easter. Salzer's Christmas Watermelon \$2.00 apiece for a New Year's dinner, etc. Now here we have a fruit that does not begin to bear until October, and holds its fruit until destroyed by frost in November. It was originated by a great specialist in Germany. Just think of being able to ship twenty to thirty bushels of cherries in October, and receiving all the way from \$8.00 to \$15.00 a bushel! That's what you can do by planting the October cherry. It is hardy as oak, and will do well everywhere.

The National Nurseryman.

C. L. YATES, Proprietor.

RALPH T. OLCOTT, Editor.

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Correspondence from all points and articles of interest to nurserymen and horticulturists are cordially solicited.

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Annual convention for 1898—At Omaha, Neb., June 8, 9.

Entered in the Post Office at Rochester, as second-class matter.

ROCHESTER, N. Y., JUNE, 1898.

AMERICAN ASSOCIATION.

The twenty-third annual convention of the American Association of Nurserymen will be held at the Millard hotel, Omaha, June 8 and 9. The combined attraction of the convention and the exposition should make the trip especially interesting. Following is the programme so far as prepared:

Irving Rouse, of Rochester, N. Y., President's address; Professor S. M. Emery, of the Montana Experiment Station, Bozeman, Mont., "Fruit Prospects in Montana;" Professor F. W. Taylor, of Lincoln, Neb., "Relation of Agriculture to the Exposition;" Hon. C. L. Watrous, of Des Moines, Ia., "A Little Matter of Business;" Hon. N. H. Albaugh, Tadmor, Ohio, "Is the Insect Agitation of the Day a Good or Bad Thing for the Nurseryman."

The annual gatherings of the members of the association become more enjoyable each year as the bonds of acquaintance strengthen. It is the one time in the year when the nurserymen can get together and discuss trade topics and

enjoy an outing at the same time. At other seasons they depend upon their trade journal for the information of interest to the trade and as a medium for the exchange of ideas. The members are urged to use the journal freely for this purpose. As the official journal of the Association it is ready at all times to advance the interests of the members collectively and individually.

The NATIONAL NURSERYMAN, as usual, will be fully represented at the convention and will endeavor to reflect the sentiment of the members.

IMPROVEMENT OF TYPES.

Contrary to the opinion of many writers, Professor L. H. Bailey, of Cornell University, believes that the introduction of new types of fruits, while important, is less so than the improvement of types already introduced, and that with the introduced types the most promising results are to be looked for through the further improvement of the forms already highly improved rather than through work with the original wild stock. Plant breeders should work along the line of natural evolution rather than against it, endeavoring to intensify the desirable characters which already existed in the wild sorts.

It is thought there are needed more special purpose varieties of all fruits, more widely unlike varieties and more minor strains of the most popular ones. The native grapes in the estimation of Professor Bailey, need first attention, the native plums next, then the native raspberries and blackberries, and next the amalgamation of western crab apples with domestic apples, etc.

In this connection we present in this issue the views of an English promologist on the subject of improvement in apples and pears.

THE GHENT QUINQUENNIAL.

Once in five years the most prominent horticulturists of Europe gather at a great exhibition of flowers and trees and plants at the great horticultural center of the old world, Ghent, Belgium. Such a gathering has just been held. It was marked by a large and representative attendance and exhibits which outranked anything of the kind in previous years. The event is of world-wide interest. For nearly a century, since 1809, these exhibitions have been red letter occasions from which the most important events and discoveries in plant circles have been dated.

The exhibitions were instituted by the Société Royale d'Agriculture et de Botanique de Gand. The president of this society is Comte de Kerchove, a leading propagator of azaleas and other plants for which Belgium is noted. Connected with the exhibit were several elaborate social functions at some of which the king and queen of the Belgians and suite were present. King Leopold is the foremost amateur flower grower of the kingdom.

The exhibits were in every way representative of the remarkable progress in horticulture during the five years since the last exhibition. Indian and Ghent azaleas in immense numbers, magnificent condition and wealth of color were shown. The most important collection from a spectacular point of view was that of Ghellinck de Walle, of Ghent. The thirty

specimens of Indian azaleas ranged from six to eight feet in diameter, literally solid with bloom, and were arranged as a trophy at the north end of the immense exhibition house. Orchids, auriculas, rhododendrons, camelias, cycads, palms, ferns, bulbous, stove and greenhouse plants in great profusion were shown. A jury of 200 experts awarded the medals. Edward Pynaert was accorded high praise for the arrangement of the plants and a medal of honor.

THE ENTOMOLOGIST'S WORK.

During the growth of the San Jose scale "scare," nurserymen were inclined to regard the work of the entomologist as "overzealous" to say the least. They argue even now that notwithstanding the dark picture of devastation of orchards by the scale, little except the warning and the laws passed by several states exists to-day to prove the danger of the pest. With the exception of detailed reports of the entomologists of Virginia and Maryland, nothing has been brought forward to show that the scale has done great damage outside of California. Indeed, it may well be doubted that, in the northern states at least, the scale would prove, even without precautionary measures, a formidable foe to fruit.

We refer again with pleasure to the manifest spirit of co-operation between the nurserymen and the entomologists, the former accepting, unquestioned, the statements of the latter regarding the menace of the pest, and the entomologists endeavoring to provide remedies which will not seriously interfere with the nursery business.

As an instance of the manner in which the entomologist is prosecuting the work of inspecting nurseries we present in this issue a statement, somewhat in detail, by Victor H. Lowe, entomologist at the New York Experiment Station. Those who were at the convention of the American Association at St. Louis last year will remember that Mr. Lowe was present and spoke a good word for the nurserymen.

OTHER ENCOURAGING REPORTS.

The May issue of the NATIONAL NURSERYMAN as usual gave full reports of the condition of the spring trade and prospects for next fall, together with the plans as to planting. These reports were most encouraging. They furnished information which the nurserymen were unable to obtain previous to the establishment of their trade journal, and they form one of the many features which has made this journal pre-eminently the spokesman of the nurseryman.

Vice-president E. Albertson of the American Association of Nurserymen sends the following report of the well-known firm of Albertson & Hobbs, Bridgeport, Ind., regarding spring sales:

"Business this spring has been much better than it has for the past two or three years; less surplus stock is left on our hands, and there is less salable stock to be carried over until fall. Agents who are now in the field are making a better start than they have for some years. We think that the supply of stock coming on for fall is shorter than it has been for some time, and if something does not happen to interfere materially with business, we hope to see some very profitable advances in prices.

"Stock generally came through the winter in good shape and is making a nice start in its growth. The weather has been exceptionally favorable for spring planting which has now been about completed, and the plant generally is starting off nicely."

A. C. Griesa & Bro., Mount Hope Nurseries, Lawrence, Kansas, write: "Enclosed find \$1 to renew our subscription. We are pleased to note the stronger tone of the various correspondents for your May number. Speaking for ourselves, we participate fully in the general improvement, having a new packing house of 12,000 feet floor space. Our business has doubled the year past, and the outlook is good."

NO OTHER LIKE IT.

Occasionally a subscriber writes that he cannot afford longer to subscribe for the NATIONAL NURSERYMAN "as he has so many such papers coming to his office." Surely that man is laboring under a misapprehension. There is no other journal like the NATIONAL NURSERYMAN. As the official journal of the American Association of Nurserymen, the trade journal of the fraternity, it stands alone. Our subscribers may be taking horticultural papers, but they are not trade papers relating to the nursery trade.

We respectfully ask a comparison of the contents of horticultural papers, published for general distribution, with the contents of the NATIONAL NURSERYMAN, published exclusively for the nurserymen. Can the matter published in this journal be found elsewhere? Is it duplicated in any other paper? Does not the nurseryman look in vain in the horticultural and the general press for the articles especially appertaining to his trade? Where except in his trade journal can the nurseryman find means to reduce his long or fill his short lists?

Is not the nurseryman who does not regularly receive the NATIONAL NURSERYMAN being deprived of information especially prepared for him and essential to his business?

If a nurseryman must curtail his list of journals, it would seem a wise policy to retain his trade journal to the last. This is a special business publication—not one for entertainment or general information.

The annual meeting of the Park and Outdoor Art Association will be held in Minneapolis, June 22d, 23d and 24th. The following programme has been prepared: W. W. Folwell, "Playgrounds and Plazas;" Jno H. Patterson, "Landscape Gardening," illustrated by the stereopticon; Fred Kanst, "Plant Propagation for Parks;" B. E. Fernow, "Æsthetic Forestry;" Chas. M. Loring, "Tree Planting on Public Streets;" O. C. Simonds, "Appreciation of Natural Beauty;" Orlando B. Douglas, "The Relation of Public Parks to Public Health;" Chas. N. Lowrie, "Small City Parks and Open Air Breathing Spaces;" J. A. Pettigrew, "Park Woodlands and Plantations;" A. C. Clas, "The Architect and the Landscape Architect;" C. Wahl, "The Duties of Park Commissioners." The secretary and treasurer is Warren H. Manning, Boston.

NOVEL ROOT TREATMENT.

Distilled Water Supplied through a Tube to the Cut-off End of a Root on a Newly Transplanted Tree Pending the Formation of Root Hairs—Growth Greatly Accelerated.

If the root-hairs of a tree have been destroyed in transplanting, there is delay in the expansion of the leaf buds, because of the lack of root-pressure—that is, the force with which the plants lift the water absorbed from the soil, says the *Rural New Yorker*. The cells of the buds are able to absorb the water, and the roots absorb water quite freely without root-hairs, but the water thus obtained is not lifted so rapidly to the buds, hence the slow resumption of growth. In view of these facts, Professor E. S. Goff, of the Wisconsin Experiment Station, was led to make some experiments in supplying artificial root pressure to newly transplanted trees, with very successful results.

The treatment applied consists in supporting a quantity of distilled water at a height equal to, or slightly exceeding, that of the tree, and connecting this by means of a tube with the cut-off end of one of the roots. The water is thus kept in contact with the root, and is also under pressure which tends to force it into the wood. The device used consists of a round glass flask holding about two quarts, in the neck of which is a rubber cork having two vertical holes through it. Through one of these holes, a short glass tube is inserted, to which a rubber tube is attached; through the other hole, a longer glass tube is inserted, which reaches nearly to the bottom of the flask. The flask being inverted, the longer tube supplies air, permitting the water to pass out through the shorter tube, which is connected by the rubber tube with the root of the tree. In applying the apparatus to the tree, a tall stake is driven firmly into the ground, near to the top of which is placed a short, narrow piece of board, having a notch cut in it, near one end, to fit over the stake, and a hole bored through it, large enough to admit the neck of the flask, near the other end. The flask is then half-filled with water, the cork inserted, and the rubber tube attached to the shorter tube in the cork. The rubber is then passed downward through the hole in the board intended to support the flask, when the end of the tube is closed by pinching it with one hand, and with the other hand the neck of the flask is passed through the support from above, the rubber tube being drawn through in the meantime. The closed end of the tube is then released sufficiently to permit a little water to pass through, and thus force all the air out of it, when it is slipped over the end of the root that has been previously cut off, and tied on tightly with a bit of cord. The soil is then placed about the root, and the tree is thenceforth treated in the ordinary manner.

The effect of this artificial water pressure is very quickly shown, sometimes within 48 hours. In some of the cases described, the trees artificially treated started into growth 18 days before those without the artificial root pressure. The injectors remained attached to the trees until the middle of August, but it is not considered that the advantage of the injector goes any farther than in aiding the starting of root-hairs. After the leaves have once expanded, new root-hairs are formed, the normal root pressure begins. Trees of which the bark is shriveled and the buds blackened by undue drying, or of which the roots have been killed by severe freezing, can-

not be saved by this treatment. In the case of trees that seem unable to expand their leaves, although both bark and buds are plump, the process will be of value, especially when it is desired to plant without severe cutting back of the top. Clean rain water may be used in place of distilled water; but hard water should never be used.

PEAR OR QUINCE STOCK.

H. C. Prinsep, Uckfield, Sussex county, England, discussing late pears says: "The question now is, are we not by growing pears on the quince stock, bringing them more quickly into maturity, causing the fruit to ripen earlier than when grown on the pear stock? If this be so, then the remedy is as bad as the disease, for though we may have more fruit at an earlier date, we sacrifice more than is gained by being without good pears when dessert of any kind is scarce. I should be glad to know what others have to say on this subject, as it would be very interesting to learn their experience. Most of us know that, by allowing the fruit to hang as long as possible, it will retard its ripening, but with respect to the various kinds of stocks used to play such an important part, it would be more interesting still to have opinions."

AT MARCELINE, MO.

Linton & Koup, Marceline, Mo., write under date of May 9: "We have just closed our deliveries; we opened our digging March 24th. The season has been wet and cold which made the season longer for handling stock. The demand for apple has been heavy with the Ben Davis, Gano, York Imperial, Grimes Golden, Jonathan and Maiden Blush in the lead. Our trade in Illinois and Indiana was on apple, cherry, plum, pear, grape and most of the small fruits. In Missouri, Arkansas and South Kansas, it was apple, peach, plum and cherry.

"Our surplus was taken up early in the season. Stock has been in strong demand all through the season, with but little changes in price. Customers were looking for class rather than price and were ready to meet the deliveries promptly. The writer made twenty-two deliveries, and though many deliveries were made in the rain, customers were prompt. We have found trade generally the best of any season in six years. The trade on cherry has been light for four years, but the demand this season has taken out about all that was ready to go.

"The peach crops of the past three seasons have stimulated a demand for planting peach trees and there will be but few peach in surplus. The demands for the better varieties of plum, especially the Japans, have taken the surplus up. We can see no reason why the demand for fall should not be as good, if not a little better, than the past season. The stock being taken up closer, with an extra demand will greatly strengthen spring prices. The indications are that there was more nursery stock planted the past season than in any one season in the past ten years; especially is this true in Missouri in family orchards. Evergreens and ornamentals were also in demand.

"These have been in the background for some time past. The excess of rain has retarded planting, but we have about evened up now, with everything starting out rapidly."

GRAFTING THE APPLE.

Results of Experiments at the Kansas Station to Test Merits of Various Lengths of Scions and Different Portions of the Roots for Grafting—Some of the Conclusions.

In the introduction to a bulletin by S. C. Mason and J. Jones, of the Kansas Experiment Station, the authors consider the objections usually urged against grafting. The objection based on the variable character of seedling stocks is considered valid unless the grafts are planted so that roots are thrown out above the point of union of stock and scion, thus placing the trees on their own roots.

Experiments were begun at the station in 1889 to test the merits of various lengths of scions and different portions of the roots for grafting. No. 1 apple roots from French Crab seedlings were used. In the first experiment, uniform 6-in. Ben Davis scions were grafted on different parts of roots. The tops of the seedlings were cut off below the crown and the roots cut into 3 pieces. One hundred grafts were made with the upper part of the roots, 100 with the middle part, and 100 with the lower part, or tips of the roots. About 80 per cent. of the grafts made with the upper and middle parts of the roots grew and at 1 and 2 years old there was little difference between the trees grown from them. Of the grafts made with the root tips only 60 per cent. grew. The first season the trees of this lot averaged one-third less in height than the other lots and were more slender and weak. The difference was less marked the second year.

The same year that the above experiment was begun 100 Ben Davis scions 2 ft. long were grafted on the upper parts of roots cut below the crown. At 2 years old these trees were about one-half larger and stronger than the trees from 6-in. scions on similar stocks. Many of the tops were so heavy as to necessitate summer pruning.

In 1893 more extensive experiments were begun to test the merits of various lengths of scions and stocks and the merits of grafting above and below the crown. The stocks used were all No. 1 seedlings, regraded to get a more uniform lot. The scions were also as uniform as possible. Winesap, Missouri Pippin, Ben Davis, and Maiden Blush were used in each series of grafts made. Three lengths of scions, 6, 12, and 24 in. were used. With each kind of scion 4 lengths of stocks were used, namely, piece roots $1\frac{1}{4}$, $2\frac{1}{2}$, and 5 in. long, and whole roots. For all piece-root grafts the upper parts of roots were used. In all cases except where $1\frac{1}{4}$ in. stocks were used one-half of the grafts were made 1-in. above the crown and the other half below the crown. Besides the above a number of grafts were made on $2\frac{1}{2}$ -in. piece roots of small size. In all 9,200 grafts were made. The grafts were stored during the winter under uniform conditions, and in the spring set in nursery rows. The place of union of stock and scion in all cases was about 3 in. below the surface of the soil.

The percentage of loss was great, owing to the very unfavorable spring and to the grafts having been stored in a cellar which was too warm. The loss with the whole root grafts was least and increased as the length of root diminished. At the end of the first year 81.6 per cent. of the whole root grafts were living, 48.5 per cent. of the 5 in., 17.2 per cent. of the $2\frac{1}{2}$ in., 11 per cent. of the small $2\frac{1}{2}$ in., and 6 per cent. of the $1\frac{1}{4}$

in. piece root grafts. At the end of the third season measurements were made of the height of the trees and the diameter of the trunk 1 ft. above the ground. The greatest growth was in trees grafted on the longest stocks and the growth declined gradually though slightly with the shorter stocks, being about 11 per cent. greater with the whole root than with the $1\frac{1}{4}$ in. piece root grafts. The trees also showed a tendency to make the best growth from the longest scions, the growth being 11 per cent. greater with the 24 in. scions than with the 6 in. ones. There was no constant difference in growth between the trees grafted above the crown and those grafted below it.

In 1894 the above experiment was repeated in part with Winesap, Ben Davis, and Missouri Pippin apples, using 6, 12, and 24 in. scions on whole root, and 5 in. piece root stocks grafted both above and below the crown. Tables are given showing the data obtained from the measurements of the diameter and height of trees grown from the various kinds of grafts. After 2 years' growth there was no constant difference between trees grafted above the crown and those grafted below, either as regards height or diameter. The length of the stocks and scions had a marked influence on the growth, the difference in favor of the long stocks and long scions being practically constant in all cases. The height of 2-year-old trees grafted on whole roots averaged 4.81 ft., and on 5 in. stocks 3.96 ft. The diameter of the former was 0.48 in. and of the latter 0.368 in. The average height of trees from 24 in. scions was 4.79 ft.; from 12 in., 4.37 ft.; and from 6 in. scions, 3.98 ft.; and the diameters were 0.52 in., 0.411 in., and 0.388 in. respectively. From measurements made after 3 years' growth, the authors conclude that the differences due to length of either stock or scion are greater in the first and second years than in the third, the average diameters of 3 trees from 24, 12, and 6 in. scions being 0.788, 0.741, and 0.737 in. respectively.

In 1895 grafts were made with 12 and 6 in. scions on whole roots, 5 in. roots, and $2\frac{1}{2}$ in. roots grafted above and below the crown. In addition a stock grafted above the crown and with roots cut 8 in. long was tested. A table shows the measurements of trees at 2 years old. No constant differences were obtained in favor of either length or style of stock or of grafting either above or below the crown. The trees from 12 in. scions were invariably greater in height and diameter than those from 6 in. scions.

In summing up the experiments the authors say that the difference of growth in favor of the longer scions and stocks is probably not sufficient to compensate for the extra labor and expense made necessary by their use.

From an examination of the roots the authors conclude:

"First, that the main root growth from all lengths of stock is made, in the first year, at or just below the union of the stock and scion; second, that the growth at this point becomes more pronounced in the second and third year's growth of the tree; third, that growth from the lower portion of the stock is very slight during the first year and becomes of less importance during the second and third; fourth, that this lower growth is greatest on the shorter piece roots and least on the whole root; and fifth, that where the graft is buried deeply a new system of side roots will take the lead at about the usual depth below the surface of the soil, to the more or less complete dwarfing of the lower and earlier root systems."

EN ROUTE TO OMAHA.

As this issue went to press a party of eastern nurserymen was preparing to start for the convention of the American Association. It was arranged that the rendezvous should be at Rochester. The Genesee Valley party was augmented by arrivals from Philadelphia, New York, Geneva and other points east and at Buffalo one or two others joined. The route selected was the Wabash line to Chicago and the Rock Island from Chicago to Omaha. The management of both roads did all in their power to make the trip enjoyable. The Wabash railway company, which has long operated "The Banner Route," some time ago extended its line through to Buffalo and at once became an active solicitor for the large amount of traffic from the east centering in Buffalo. Equipped as it is with free reclining chair cars in the construction of which the utmost resources of the car builder's art have been exhausted, the Wabash line offers special inducements for travelers east and west. The equipment of the road is of the highest class throughout. In connection with the West Shore, the Fitchburg and the Union Pacific railways, the Wabash furnishes through service from the Atlantic to the Pacific, a distance of over 3,000 miles. Solid vestibuled trains with buffet parlor, and Pullman and Wagner sleeping coaches and free reclining chair cars are run on schedules which admit of easy connection with roads in any direction throughout the line. A feature of the equipment is the compartment sleeping coach, furnishing state-rooms with every convenience, at moderate rates.

A new time schedule will go into effect on June 5th, when the Wabash line will be doing its full share of the great Trans-Mississippi Exposition business.

SPRAYING MACHINERY.

The secretary for agriculture, Nova Scotia, says :

"The finest sprays are produced by the eddy-chamber nozzles, and by those in which two streams of water strike each other at an angle. With such nozzles spray can be made as fine as desired, the size of the outlet orifice being the main controlling factor. For long distance work, when the liquid is to be carried ten feet or more, the best spray is formed when the fluid is forced through two flat parallel metal surfaces. The greater the pressure, the greater will be the amount of fine spray and the farther will it be thrown. Although the ideal nozzle has not yet been made in metal, some of the forms now sold are approaching perfection.

"All good spray machinery is expensive, and only careless operators will neglect the ordinary methods of preserving it as long as possible. When the pump has been used in applying any of the preparations with the exception of clear water, it should be cleaned. No insecticide or fungicide should be allowed to stand within the pump, but clear water should be pumped through it before it is put away. It is well to oil all the working parts occasionally, as a little oil at times may prevent the metal from being cut, and the pump will be thus preserved much longer than otherwise. Nozzles are also benefited by the same treatment. Oil can scarcely be used too freely on the inside of such apparatus, and an occasional coat of paint on the outside will assist materially in protecting the metal. The careless man pays dearly for his neglect."

GRAPE VINE TRADE.

T. S. Hubbard, Fredonia, N.Y., writes under date of May 23: "Our sales the past season have been very satisfactory in quantity—over twenty-five per cent greater than in the previous year; but prices have ruled considerably below cost of production and this, together with the unfavorable season for the growth of grape vines last summer, has made the year an unprofitable one for us. But our salable stock was nearly all closed out and the over-production and surplus of grape vines that has existed the past two years we believe is now disposed of, so that the largely reduced planting of cuttings both last year and this, will cause a shortage in both one and two year vines the coming season, and prices must necessarily materially advance.

"While our plantings are not as heavy as last year, yet with the present favorable prospects we hope for a better quality and growth. Our spring plantings were got in in unusually good season and condition. Collections have been exceptionally good. Altogether we think prospects are quite encouraging."

THE ORANGE WORM.

A recent despatch from Los Angeles reads as follows: Dr. Leland O. Howard, entomologist for the department of agriculture at Washington, and curator of insects for the national museum, is in the city on his return from Mexico, where, with others of his department, he has been making a thorough examination into the matter of the Morales orange worm, *Trypeta ludens*. The report he gives is not encouraging to the growers of oranges in this state, as it seems it is simply a matter of luck whether or not the ranchers here are afflicted with this pest, which seems to be even more of a danger than was the white scale.

Dr. Howard found that the claim of the Mexicans that the worm was confined to the one state of Morales was incorrect, for it has been found by his party everywhere in Mexico where oranges are grown, except the state of Sonora. Its entrance into that place and into California, unless the most rigid precautions are taken, is simply a matter of time and chance.

The fly is about the size of a house fly, slightly narrower and with barred wings. It deposits its eggs a short distance in the skin of the orange, and when the maggot hatches it at once pierces the remaining portion of the skin and makes its way into the pulp of the fruit, where it lives until ready to change into a fly, eating the interior of the fruit and presenting a most disgusting appearance when the orange is cut open.

It has been shown that the fly is not kept in Mexico by climatic conditions, as it has been hatched in Nebraska and Washington and has thrived there under the watch of investigators. There is no remedy known against its ravages, unless it be that of a strict quarantine, which Dr. Howard will recommend on his return to Washington.

The proceedings of the 43d annual meeting of the Western New York Horticultural Society have been published under the direction of the Secretary, John Hall. This organization was ushered into the world by Charles Downing, Patrick Barry, John J. Thomas and other pioneer pomologists and horticulturists, and its history is interwoven with the marvelous development of fruit interests, not only of New York State but of the entire Union.

Among Growers and Dealers.

Benjamin Chase, Derry, N. H., comes to the front as usual with a varied assortment of tree labels.

The Osage Nurseries have started an experiment station on the farm of J. A. Kelley at Dell Rapids, S. D.

On May 14 employees of Dreer's Nurseries, Philadelphia, unfurled a large flag with appropriate exercises.

W. H. Ragan, Green Castle, Indiana, is chairman of the American Pomological Society's catalogue revision committee.

J. G. Harrison & Sons, Berlin, Md., want lowest cash prices quoted on carload of guaranteed natural peach seed from the South.

Horticultural Commissioner J. E. Baker, Tacoma, reports that there are 35 licensed nurserymen in the state of Washington.

C. J. Hartel, who has been in charge of the Oak Grove Nurseries, at Alhambra, Cal., has resigned and gone to San Francisco.

Bismarck apple, Hale plum, snowball, altheas and dogwood of his own growing are offered by Hiram T. Jones, Elizabeth, New Jersey.

W. D. Beattie, Atlanta, Ga., has leading varieties of peach trees well matured to tips, with good roots, carefully graded, at low prices.

J. Blaauw and P. M. Koster, Boskoop, Holland, sailed for home last month after a visit to florists and nurserymen of the United States.

H. S. Anderson, representing Hiram T. Jones, Union County Nurseries, Elizabeth, N. J., called on Rochester nurserymen, last month.

J. G. Harrison & Sons, Berlin, Md., give their full budded list of peach, over 1,000,000 trees, on outside cover of this issue. They also offer buds.

The new post office of the Alabama Nursery Co. is Chase, near Huntsville, Madison County, Ala. E. A. Chase is president, H. S. Chase treasurer, H. B. Chase secretary.

Andre L. Causse of New York, the well-known importer, who is usually seen at the conventions of the American Association, finds it impossible to be at Omaha this year.

Stephen Hoyt's Sons, New Canaan, Conn., are pushing a new Burbank plum, the October Purple, said to be the wizard's best production. It is described in another column.

The sixteenth annual meeting of the American Seed Trade Association will be held at Old Point Comfort, Va., June 14-16. J. B. Rice, Cambridge, N. Y., is president.

A general assortment of fruit tree stocks at low prices is offered by C. C. Abel & Co., Box 920 New York city, representatives of P. Sebire & Sons, Ussy, Calvados, France.

Fruit, forest and ornamental stock, French grown, is handled in large quantities by August Rhotert, 56 Barclay Street, New York, sole agent for Louis Leroy's Nurseries, Angers, France.

The Nurserymen's Mutual Protective Association and the American Nurserymen's Protective Association will hold meetings at the Millard hotel, in Omaha, on Wednesday evening, June 8, at 8 o'clock.

W. T. Hood of the well known firm of W. T. Hood & Co., Old Dominion Nurseries, Richmond, Va., is going out of business on account of his age. He offers to sell his interest. The firm has a full stock for fall trade of 1898 and spring of 1899.

C. W. Murphy, for some time senior manager of the Canadian business at St. Thomas, Ont., under the name of Maple Grove Nurseries, is now located at Lawrence, Kan., where he is the manager of the Western Nursery Co. He would like growers' price lists.

August Rhotert, of New York city, representing Louis Leroy's Nurseries, Angers, France, and M. Koster & Sons, Boskoop, Holland, was in Rochester last month on his way westward. At the Omaha convention he will be joined by his salesman, J. McHutchinson.

T. V. Munson, Denison, Tex., has been elected corresponding member of the National Society of Agriculture of France. In 1889 Mr. Munson was accorded the decoration of the Legion of Honor for his success in supplying grafting stock with which to restore worn out vineyards in France.

An inspection fee has been imposed by the Horticultural Board of British Columbia, on all nursery stock; on consignments of 100 trees the fee is \$2.50; 100 to 250 trees, \$3.50; 250 to 500 trees, \$4.50. If found infected, a charge of 50 per cent. is added for disinfection. On fruit the minimum fee is \$1.00 on any sum up to \$33.00, and 3 per cent. on any sum over \$33.00 in value.

Some of the members of the American Association are wondering who will tell the after dinner stories at the convention, in the absence of Herman Berkhan of New York, whose custom it has been to visit the Bowery to procure the latest bon mots just before starting for the convention. The arrival of his fifth daughter, three weeks old on May 26th, is said to be the cause of Mr. Berkhan's detention in New York. He will be on hand next year.

The Mt. Desert Nurseries, Bar Harbor, Me., which have been for the past three years conducted as a private enterprise by George B. Dorr, of Boston, with William Miller as manager, have been incorporated by Mr. Dorr with a capital stock of \$50,000, of which \$300 has been paid in. The officers of this new corporation are George B. Dorr, of Bar Harbor, president; M. G. Dorr, treasurer. The certificate of incorporation was approved May 4, 1898.

NO SCALE IN AMERICAN FRUIT.

The German government admits in official correspondence that no San Jose scale has been found among the American fruit refuse examined. It was on the allegation that the scale did exist that the German government some time ago issued its prohibitory orders against American fruit and fruit refuse, &c.

TOO VALUABLE TO GIVE UP.

LAKE VIEW NURSERY CO., SHERIDAN, N. Y., May 23.—"Enclosed please find \$1.00 to pay for subscription to NATIONAL NURSERYMAN for one year. It is too valuable to give up."

FULL FILE OF THE JOURNAL.

ALBERT BROWNELL, ALBANY, ORE., May 18.—"Find enclosed P. O. money order for \$1.00 for subscription to NATIONAL NURSERYMAN. Can not afford to be without it. Have all the numbers from first issue on file in our office."

Recent Publications.

Dr. L. O. Howard, U. S. Entomologist, has issued a bulletin, No 12, new series, on the San Jose scale, giving the history of the insect for 1896 and 1897. He promises in bulletin No. 13 a compilation of the laws on the subject. Both of these bulletins will be of great value to nurserymen.

"Historical Sketch of the U. S. Department of Agriculture; Its Objects and Present Organization," compiled by Charles H. Greathouse, of the Division of Publications, has been issued by the United States Department of Agriculture as Bulletin No. 3. Division of Publications. This bulletin has been prepared in compliance with frequent demands for information regarding the origin and development of the department.

The eleventh and twelfth reports of the late Professor J. H. Lintner, state entomologist of New York, teem with valuable facts regarding insects injurious to plant life. They represent in part the result of many years of experience as an entomologist. They are illustrated with many engravings and with full page plates of the subjects discussed, while an exhaustive index affords ready reference. Professor Lintner made a strong plea for entomological study, citing the mental discipline it affords, the facilities offered, the interest attaching to it, its practical importance and the vast extent of the field that is opened to the student. The reports of Professor Lintner are a monument to his untiring energy in his chosen work.

Strange as it may seem, reliable books on the management of greenhouses are not plentiful. Recognizing this fact, Professor L. R. Taft, of the Michigan Agricultural College has prepared a manual entitled "Greenhouse Management," which has been declared by all who have examined it to be a most timely addition to the list of authoritative works on horticulture and floriculture. Those who have the author's work on "Greenhouse Construction" will lose no time in procuring this supplemental book. Professor Taft has devoted 382 pages divided into 30 chapters to all the phases of greenhouse work. Special chapters are devoted to the management of roses, carnations, chrysanthemums, violets, orchids, bulbs, ferns, palms; five chapters to the growth of vegetables under glass; and other subjects include fruit trees under glass, insects and diseases, soil, manures, watering and fuel. The book is profusely illustrated. Cloth, \$1.50. New York: ORANGE JUDD CO.

No. 8 of Vol. IX. of the Experiment Station Record summarizes the compilation of statistics relating to land grant colleges and agricultural experiment stations in the United States. There are 64 agricultural colleges, with a total income of \$5,178,580.82. The faculties comprised, in 1887, 2,311 persons. The students numbered 28,882, and the average age of the graduates was 21.9 years. All the states and territories have agricultural experiment stations, except Alaska, and an appropriation has been made by congress for continuing this year investigations begun in Alaska last year. The income of the stations in 1897 was \$1,129,832.99, of which \$719 993.47 was received from the national government. The stations employ 628 persons in the work of administration and research. Of this number 71 are horticulturists, 47 botanists, 48 entomologists, 21 mycologists and bacteriologists. In 1897 the stations published 54 annual reports and 328 bulletins. Connecticut, New Jersey, New York and Louisiana maintain stations by state funds.

The ninth annual report of the Missouri Botanical Garden has been issued by the board of trustees, under the direction of Dr. William Trelease, the director of the garden. Nurserymen take especial interest in this garden by reason of the visit to the grounds by members of the American Association during the convention in St. Louis last June and the banquet at the Mercantile club on June 10, 1897. The annual reports of the trustees indicates a steady growth in the equipment and work of this garden, of which all Americans interested in botanical study are proud. The receipts for 1897 were \$329,457.99, and there is a surplus of \$76,077.10. There are 288,380 specimens, valued at \$28,838 in the herbarium. The library contains 31,013 books and pamphlets, valued at \$46,383.31. A number of valuable scientific papers, illustrated, are presented. Dr. Trelease contributes some interesting notes, and H. C. Irish, whom all at the St. Louis convention in

June will remember, has a paper on "A Revision of the Genus *Capsicum*."

Nurserymen will be especially attracted by the contents of a new work entitled "Residential Sites and Environments," by Joseph Forsyth Johnson, F. R. H. S., consulting landscape gardener and garden architect, author of "Natural Principles of Landscape Gardening." The sale of ornamental nursery stock is intimately connected with landscape gardening. While those who have been long in the nursery business have acquired a knowledge of many requirements for the proper arrangement of trees and plants to produce pleasing and artistic effects, they can not fail to obtain suggestions during a perusal of this interesting volume and those who have desired to extend their knowledge of this branch of their business can gain much of value from it. It is a practical work by a practical man. The chief portion deals with the landscape development of the surroundings to give an air of repose and seclusion. This is obtained by artificial planting, but in a natural manner, avoiding the belt line style so monotonously adopted. The author is a vigorous advocate of the natural method, but sees good in the formal styles in certain locations; the plan given for combining these, with a transition from the one to the other, is a clever piece of work. By a number of plans the correct treatment of various sized grounds is shown, from the small lot to the park home and city square, also suggestions for fronts of public halls, etc. Perpetual effect is one of the points of insistence of our author. He does not love the garden which is all ablaze during one month and a desert during the rest of the year; he says a garden, to be worthy of the name, must show us some beauty at any and all seasons. This is to be obtained by proper planting and the use of evergreens, bulbs, etc., with the other generally used subjects. Reasons are given in each case. The book is well illustrated. Royal quarto; 118 pages; full cloth; \$2.50; full gilt \$3. New York: A. T. DE LA MARE PRINTING AND PUBLISHING CO., LTD.

As the result of a more general knowledge of the requirements for the successful growing of orchids this branch of horticulture is being considerably extended. Orchids now form a part of all large collections and there is a steady demand for their sale as cut flowers. Nurserymen who have greenhouses may easily acquire the requisite knowledge concerning orchids to enable them to include this interesting class of plants in their business. It is probable that the most thoroughly up-to-date work on orchid culture is the "Orchid Grower's Manual" by Benjamin Samuel Williams, enlarged and revised in the seventh edition by his son, Henry Williams, F. L. S., F. R. H. S., and published by the well-known importers and growers of orchids, B. S. Williams & Son, Victoria and Paradise Nurseries, Upper Holloway, London, N. This work of 800 pages with over 300 illustrations contains nearly everything the orchidist could desire in the way of information on orchids and their growth. It is a manual and an encyclopædia combined. An idea of the comprehensiveness of the work may be had from a glance at some of the chapter titles. The author in his introduction calls attention to the fact that the cultivation of orchidaceous plants is no longer exclusively the privilege of the few, because of the extended experience of growers and the discovery that many of the most ornamental species require less heat and less expensive appliances than were once thought necessary. The great orchid houses of the Victoria and Paradise nurseries evidence the authority upon which the statements in this manual are based. Mr. Williams passes by easy stages to a discussion of the habitat of tropical orchids, the season for collecting orchids, the risk assumed by collectors, hints to collectors, the treatment of orchids during growth and during rest, adaptation of treatment to surrounding conditions, treatment of newly imported plants, treatment of plants in bloom, making orchid baskets, potting epiphytal and terrestrial orchids, inducing back growths, watering and propagating orchids, raising orchids from seeds, orchids for room decoration, construction of orchid houses, growing specimen orchids for exhibition, insects and diseases of orchids, prices of orchids, etc. Nearly 700 pages are devoted to a catalogue and description of all varieties. It will thus be seen that scarcely a question regarding the culture of orchids remains unanswered in this volume. The illustrations, many of them full page cuts, add much to the interest and value of the work. Super-royal 8vo., gilt-edged. 800 pages, 25 s. 10 d. London, England: B. S. WILLIAMS & SON, VICTORIA AND PARADISE NURSERIES.

RATES TO OMAHA.

The chairman of the Western Passenger Association gives the following information regarding railroad rates to the convention :

CHICAGO, May 4, 1898.

MR. GEORGE C. SEAGER,

Secretary American Association of Nurserymen,

Rochester, N. Y.

DEAR SIR :—Referring to recent correspondence regarding reduced rates for the annual convention of the American Association of Nurserymen to be held in Omaha, Neb., June 8-9, 1898, beg to advise that the following arrangements have been announced for the Trans-Mississippi Exposition at Omaha, Neb., June 1—November 1, 1898, which it is thought will take care of your meeting, viz.:

Round trip summer tourist rate based on eighty per cent. of double locals from all points in Eastern Committee and Trans-Missouri territories of this Association; tickets to be sold June 1 to October 15, 1898, inclusive, good to return until November 15, 1898.

In addition to the above, rate of one and one-third fare for the round trip will also be in effect from all Western Passenger Association territory east of and including Colorado common points and Cheyenne, except that rates from the following points shall be as follows, viz.: Chicago, \$20.00; Peoria, \$17.00; St. Louis, \$17.00; Denver, \$25.00; Colorado Springs, \$25.00; Pueblo, \$25.00; St. Paul and Minneapolis, \$15.55. Tickets to be sold at these rates June 1 to October 30, inclusive, limited to return thirty days from date of sale, but not to exceed November 15, 1898.

It has been agreed that the only rates which will be tendered to lines outside the territory of the Western Passenger Association are the round-trip summer tourist rates based on eighty per cent. of double locals.

Respectfully,

B. D. CALDWELL, *Chairman.*

MR. HALE'S OPINION.

Editor NATIONAL NURSERYMAN :

Some one has said "All men are liars." From my personal acquaintance with the great number of people in the nursery trade I have always believed that they were excluded from this special class, but when I come to read in your May issue the glowing reports of increased and profitable nursery trade all over the country, I begin to wonder if the nurseryman was not coming down to the average of the rest of mankind. For through close personal contact and inside information from quite a number of the most progressive and generally accepted prosperous and reliable nursery firms of the country, and the facts and figures of my own little nursery business, the spring of '98 is reckoned to be the most unsatisfactory in point of direct sales to planters and falling off in cash receipts of any year for many past, and so it strikes many of us as a little peculiar that there should have been so much prosperity afloat and none of us even get a smell of it, and while there are various little troubles that count in a local way as effecting any one of us, the main difficulty seems to have been too many trees and plants grown by the wholesale nursery trade, a desperate fear that all would not be sold and the circulating of wholesale circulars to anybody who had ever been known to buy as many as one-half dozen trees.

I have before me at the present time a letter sent out by a New York nurseryman on the 5th of April to small planters all over the country offering apples, pears, cherries and plums at from 5 to 8 cents; raspberries, strawberries, currants, etc., at less than one-half usual retail rates, and as this letter was received by a man who never in his life had bought as many as a half dozen trees in a season, it would indicate that the dis-


tribution was pretty general. In some cases farmers bought these trees by the hundred or thousand and peddled them out to their neighbors at an advance of a cent or two per tree, and so the general impression has gone abroad that the nurserymen are ready to dump their wares upon planters at any price they are willing to pay.

And after all the "whistling" in the May number for the purpose of "keeping up courage," it seems to me that a plain statement of the case is, that the nursery business is in a sadly demoralized condition and will never be any better until there is a very material curtailment in propagation and the maintaining of prices that will give greater returns for the labor and money expended in the propagation.

Those of us who have other and greater interests can stand it all right and continue the nursery business for fun, but where one has to make his entire living out of that business there must be a radical change or a tremendous lot of failures are sure within the next year or two. Planters as well as nurserymen are being demoralized by present methods. Too many orchards are being put out without careful thought and preparation, and in the end they are sure to be demoralizers of our horticultural interests.

J. H. HALE.

South Glastonbury, Conn., May 24, 1898.



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SOLE AGENT,
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Purple Plum and he says best production.
 The fruit is one of the most attractive, as well as the best of all the Japan Plums. The color is reddish purple with a beautiful purple bloom. Form round. Size large; some specimens sent us measuring over seven inches in circumference. It is a late variety as its name indicates. The tree is an erect handsome grower, forming an upright head like that of the Abundance. It is sure to have a large sale. We offer to the trade for this Fall a limited number of one year old trees. Prices given on application. No buds sold this season.

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Honey Locust Hedge, Most Ornamental for
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Ornamental
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FOR GROWERS AND DEALERS IN NURSERY STOCK.

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VOL. VI.

ROCHESTER, N. Y., JULY, 1898.

No. 6.

THE CONVENTION.

TWENTY-THIRD ANNUAL MEETING OF THE AMERICAN ASSOCIATION OF NURSEYMEN.

Western Members Well Represented—Mayor Moore's Hearty Welcome—President Rouse's Address—Secretary's Report—State Vice-Presidents—The New Officers—Report on Legislation—Incorporation Plan Again Broached—To Meet at Chicago Next Year.

The twenty-third annual convention of the American Association of Nurserymen was held at Creighton hall, in Omaha, on June 8 and 9. About 150 of the 426 members were present. Among those who attended were: E. Albertson, Bridgeport, Ind.; N. H. Albaugh, Tadmor, O.; H. Augustine, Normal, Ill.; R. C. Berckmans, Augusta, Ga.; A. L. Brooke, North Topeka, Kan.; Arthur Bryant, Princeton, Ill.; W. M. Bomberger, Harlan, Ia.; M. Butterfield, Lee's Summit, Mo.; L. G. Bragg, Kalamazoo, Mich.; John C. Chase, Derry, N. H.; A. B. Combs, Fort Scott, Kan.; J. H. Dayton, Painesville, O.; J. Cole Doughty, Lake City, Minn.; S. M. Emery, Bozeman, Mont.; Wm. Fell, Hexham, England; M. B. Fox, Rochester, N. Y.; J. A. Gage, Fairbury, Neb.; A. C. Griesa, Lawrence, Kan.; J. J. Harrison, Painesville, O.; Orlando Harrison, Berlin, Md.; W. F. Heikes, Huntsville, Ala.; T. S. Hubbard, Fredonia, N. Y.; E. C. Ilgenfritz, Monroe, Mich.; Z. K. Jewett, Sparta, Wis.; Hiram T. Jones, Elizabeth, N. J.; George S. Josselyn, Fredonia, N. Y.; E. W. Kirkpatrick, McKinney, Tex.; D. S. Lake, Shenandoah, Ia.; Samuel Lorton, Davenport, Ia.; Jacob W. Manning, Reading, Mass.; Thomas B. Meehan, Germantown, Pa.; Wilson J. Peters, North Topeka, Kan.; Colonel U. B. Pearsall, Kansas; William Pitkin, Rochester, N. Y.; Irving Rouse, Rochester, N. Y.; L. T. Saunders, Plain Dealing, La.; W. N. Scarff, New Carlisle, O.; E. M. Sherman, Charles City, Ia.; Nelson C. Smith, Geneva, N. Y.; J. H. Skinner, North Topeka, Kan.; F. H. Stannard, Ottawa, Kan.; George J. Spear, Greeley, Colo.; Stark Brothers, Louisiana, Mo.; E. F. Stephens, Crete, Neb.; Robert C. Stoer, Dayton, O.; C. L. Watrous, Des Moines, Ia.; H. J. Weber, Nursery, Mo.; E. S. Welch, Shenandoah, Ia.; George H. Whiting, Yankton, South Dakota; A. Willis, Ottawa, Kan.; Silas Wilson, Atlantic, Ia.; F. G. Withoft, Dayton, O.; Peter Youngers, Geneva, Neb.; C. L. Yates, Rochester, N. Y.

The headquarters of the convention were at the Millard hotel and it was there that the members spent most of their time. The short programme at the convention hall left more than the usual amount of time for visiting at the hotel. As will be noted from the few names mentioned, a number of those who have attended the conventions regularly were on hand, but the attendance from the East was small. Mrs. Irving Rouse and Mrs. George E. Seager, of Rochester, N. Y.;

Mrs. Samuel Lorton, of Davenport, Ia., and Mrs. Jacob W. Manning, of Reading, Mass., accompanied their husbands.

PRESIDENT'S ADDRESS.

The convention was called to order at 10:20 a. m., on June 8, by President Rouse, who delivered the following address:

Gentlemen of the American Association of Nurserymen:—We are assembled to-day to hold the twenty-third annual meeting of this Association; and it is with great pleasure that I call your attention to the prosperous and flourishing condition of our organization. Under the able supervision of Secretary Seager, our income has steadily increased; and while our treasury balance is, I understand, at rather a low point, this condition is due solely to the extraordinary expenditure connected with the tariff and seale bills.

During the past year I have accepted the resignation of Treasurer Whitney; and with the advice and consent of the executive committee, have appointed Secretary Seager to act as treasurer until such time as his successor is elected.

In the matter of the treasurership, I would recommend that the incoming treasurer should be required to give bonds, as is customary in positions of trust, for the faithful performance of his duties.

Our present meeting place is marked by reason of its being located farther west than any convention held by this Association. We are now in the center of that boundless expanse of country which is taking and is destined to take the great bulk of the products of our business. It is difficult for an eastern nurseryman, unfamiliar with this country, to realize that here will be located the great nurseries of the future.

As you are aware, this Association is one for mutual help and benefit, and it certainly serves its purpose well. While it has two off-shoots, the Eastern and Western Associations, both of them work with it and for it, and both come to it for advice and assistance. Without the aid of this Association the nursery schedule in the Dingley tariff act, of which we are expecting so much, would never have been enacted. The federal law or San Jose seale act, now before congress, and which we hope will shortly become a law, was only accomplished by the united efforts of this Association. A full report of this matter will, I hope, be received from our legislative committee.

On March 18th last, the Dominion houses of parliament suspended the rules and passed what is known as the Canadian exclusion act. This act immediately came into effect, and bars out of Canada all trees, shrubs, plants and vines, commonly known as nursery stock. It is estimated that at least \$500,000 worth of nursery stock had been sold from the State of New York alone, in Canada. A great portion of it at retail, on which commission had already been paid, not a dollars' worth of which could be shipped. A protest was at once lodged at Washington, and our state department took the matter up with the British authorities. After a good deal of correspondence the governor general of Canada, through the British ambassador refused to suspend all or any part of the law, not excepting the stock covered by previous contract.

All the correspondence, with copies of the state papers, connected with this matter, I have on file, and they can be incorporated in our annual report if so desired.

In view of this state of affairs, it seems to me very desirable that this Association take some action looking to a rescinding of this law, or to retaliation on our part, if the former cannot be accomplished. Under the federal seale act, the secretary of agriculture would have power to bar Canadian fruit out of the United States, for the same reason that Canadians bar our trees, and with much more justice. I would suggest that this whole matter be thoroughly discussed, and placed in the hands of our legislative committee.

In conclusion, it seems to me that any one who has successfully weathered the past few years in the nursery business, deserves the

heartly congratulations of all those familiar with the business. We may go forward with the conviction that the future holds nothing worse than the past, with its below cost prices, scale seares, and hostile legislation; and that at present our prospects are brighter than at any time during the past five years.

Upon motion of Mr. Albaugh, who said the address was one of the most important the Association had heard, the suggestions therein were referred to a committee of three. Mr. Albaugh also suggested that the financial affairs of the Association be referred to an auditing committee. The following committees were soon afterward appointed:

On president's address: Wilson J. Peters, Ohio; William Pitkin, New York; E. Albertson, Indiana.

On association finances: A. L. Brooke, Kansas; Samuel Lorton, Iowa; J. H. Dayton, Ohio.

MAYOR MOORES' ADDRESS.

Mayor Frank P. Moores, of Omaha, welcoming the members, said:

I am glad to see so many members of this association from all parts of the country. I understand that this is a world association. We people of Omaha have just started in with our exposition and we feel a great deal of pride in it, and it is a compliment to us to have you come from your homes so far away to pay us a visit. I want you to know that the entire city is yours. Anything you want you can take. If you get into any trouble just call me up on the telephone. My number is 55 and I am in my office most of the time. I will see that you go on your way rejoicing.

We are proud of our growing city. Omaha is the small part of the big funnel which reaches away out to the westward and gathers the mighty products, delivering them at this gateway. In this section we do not raise so very much fruit yet, but last year our enormous wheat crop stood third or fourth in the country, and as for corn, it was king in Nebraska—we led the world.

In the packing industry our city is the third—you all know the big packing centers—Chicago, Kansas City, Omaha—but we hope to overtake Kansas City soon and make Omaha second. We have at South Omaha five big packing establishments and Mr. Armour has just paid \$1,000,000 for another immense plant.

We have all come from eastern points if we are now westerners. I emigrated here from the United States of Ohio and I see here several old acquaintances. I was born at Hamilton and I lived at Cincinnati and Dayton, so I call myself a C. H. & D. boy. I served in three Ohio regiments during the civil war. I have met here to day a man from Baltimore and that reminded me of the war. I want to say this about the war: It has wiped out every foot of Mason and Dixon's line (applause). It has made us all Americans, with one country and one flag. You remember how, when the Sixth Massachusetts passed through Baltimore during the war, they were hissed, stoned and egged. The other day they passed through again. Instead of hisses they got kisses; instead of stones, eggs, bullets and cannon balls they were received with open arms. I say, God bless Baltimore, and God bless the American people!

If you are at the city hall come in and see me. I have nothing very strong to drink there, but I have plenty of good cigars and will be pleased to see you.

The remarks of Mayor Moores were received with applause and President Rouse thanked him for his cordial welcome. The mayor said it was a pleasant duty.

STATE VICE-PRESIDENTS.

The following vice-presidents for the states were elected: Alabama, W. F. Heikes, Huntsville; Arkansas, T. Wing, Nevada; Colorado, George J. Spear, Greeley; California, Thomas B. Bohlender, Chico; Connecticut, J. H. Hale, South Glastonbury; Delaware, Alexander Pullen, Milford; District of Columbia, James Wilson; Florida, George L. Taber, Glen St. Mary; Georgia, R. C. Berckmans, Augusta; Idaho, S. S.

Lewis, Boise City; Illinois, C. N. Dennis, Hamilton; Indiana, E. Albertson, Bridgeport; Iowa, Silas Wilson, Atlantic; Indian Territory, W. B. Samuels, Ardmore; Kansas, A. Willis, Ottawa; Kentucky, J. M. Samuels, Clinton; Louisiana, L. T. Sanders, Plain Dealing; Maine, Herbert A. Jackson, Portland; Maryland, Howard Davis, Baltimore; Massachusetts, J. W. Manning, Reading; Michigan, C. W. Schriver, Benton Harbor; Minnesota, J. Cole Doughty, Lake City; Mississippi, Dr. H. T. McKay; Missouri, W. P. Stark, Louisiana; Montana, S. M. Emery, Bozeman; Nebraska, Peter Youngers, Geneva; New Hampshire, John C. Chase, Derry; New Jersey, Hiram T. Jones, Elizabeth; New York, George S. Josselyn, Fredonia; North Carolina, J. Van Lindley, Pomona; Ohio, Frederick G. Withoft, Dayton; Pennsylvania, Thomas B. Meehan, Germantown; South Dakota, George H. Whiting, Yankton; Tennessee, W. W. Baird, Humboldt; Texas, E. W. Kirkpatrick, McKinney; Utah, J. A. Goodhue, Salt Lake City; Vermont, D. J. Camp, Randolph; Virginia, E. H. Bissell, Richmond; Washington, C. L. Whitney, Walla Walla; West Virginia, G. P. Miller, Romney; Wisconsin, Z. K. Jewett, Sparta.

SECRETARY'S REPORT.

Secretary Seager's report showed that the Association had on hand in cash \$536.70. There is due the Association from the ex-treasurer, N. A. Whitney, Franklin Grove, Ill., \$1,491.80. Counting this as good the Association has a fund of \$2,028.50. Unpaid bills and the expenses of the 1898 convention will amount to about \$950, leaving a balance of nearly \$1,100. The secretary stated that the average annual income of the Association is \$1,100 and the expenses are about \$1,000 annually, making a net increase each year of \$100.

S. M. Emery, of the Montana Experiment Station, Bozeman, Montana, formerly a nurseryman at Lake City, Minn., and in 1890 president of the American Association, read a paper on "Fruit Prospects in Montana," extracts from which appear on another page of this issue.

LEGISLATION.

C. L. Watrous, of Iowa, presented the following report of the committee on legislation at the afternoon session:

"Your committee appointed to urge the passage by congress of the bill prepared and approved by this Association at its last session in St. Louis in June 1897, beg leave to report:

"During the interim between June and the meeting of congress in December, a friendly correspondence was undertaken with representatives of the Washington convention held in March 1897, which convention had also adopted a bill covering the same subject and already secured its introduction in both houses of congress. This correspondence was fortunate in that it secured such substantial agreement between the representatives of the Washington convention and those of this Association that a joint meeting was held in Washington in January 1898, and the bill of this Association with very slight amendments was unanimously adopted as best representing the views of all parties in interest.

"The joint committee consisting of Messrs. Albaugh, Rouse, Wilson, and the writer, on the part of this Association, and of Messrs. Alwood, Webster, Johnson, and Wordall on the part of the Washington convention, secured an early hearing before the committee on agriculture of the house of representatives, and presented the case so forcibly as to secure an early and favorable report upon the bill, to the house of representatives.

The joint committee also waited upon the secretary of agriculture, and received from him the most cordial support. Messrs. Wilson and Watrous of your committee remained in Washington and very soon, through the aid of Senator Gear of Iowa, secured a hearing before a sub-committee appointed by the senate committee of agriculture and presented the case to them in such a manner as to secure their approval.

"Much correspondence was had with members and senators in congress, asking their support, and everything seemed to promise a speedy and successful termination of our labors, when the war with Spain broke out. Since then the efforts of congress have been all towards putting the nation in a position to come honorably out of the great task undertaken.

"Your committee believe that, in view of the great interests involved, this Association should continue its efforts to secure an early passage of the bill prepared, in as nearly its original form as possible, and that the present committee should be granted further time to complete this work, or that a new committee should be raised at this meeting and charged with the same duty."

President Rouse—"There has been considerable criticism of the position taken by the Association on the San Jose scale question. I do not think that position has been understood. Neither this Association nor any other nursery association has advertised the scale. We have been forced into action looking toward the protection of our interests. The federal bill was proposed in the hope of securing uniform legislation in place of the widely varying state laws. I will ask Mr. Watrous to explain the matter further."

Mr. Watrous—"One thing which caused the criticism to be raised was the German edict against American trees and fruit. Some thought that the federal insect bill was the cause of that edict. But Andrew White, our ambassador to Germany, told me the edict was the result of the laws passed by the several states, especially in the case of Oregon. From that I gathered that the German edict was not the result of anything we had done. We have simply endeavored to provide a system by means of which nurserymen may ship their stock. The present and prospective state laws present many difficulties."

By unanimous vote the report of the committee was adopted and the committee was continued. Upon motion of Mr. Albaugh, the secretary was instructed to send the following telegram to Speaker Reed of the house of representatives and to Congressman James W. Wadsworth, of New York:

OMAHA, NEB., June 8, 1898.

HON. T. B. REED, *Washington, D. C.*

The American Association of Nurserymen, in its twenty-third annual convention assembled at Omaha, Nebraska, June eighth, do earnestly urge the immediate passage of the proposed federal insect bill.

IRVING ROUSE, *President.*

MR. ALBAUGH'S ADDRESS.

Mr. Albaugh then talked on the subject "Is the Insect Agitation of the Day a Good or Bad Thing for Nurserymen?" In the course of his remarks he said:

For four or five years we have had before us the ablest entomologists of the country. They have shown us the animalcules in the drops of water, and new, horrible and disastrous insects that were going to ruin the nurseryman's business sure enough, and we have sat with gaping mouths and widely distended eyes, wondering what would become of the poor but honest nurseryman from this time henceforth.

We go into different states and we look on the statute books, and we find some very raw laws framed and adopted by the farmers and passed with a home-made nurserymen ring. A man hardly is allowed to

breathe if he goes into that state and is an agent for trees, or a nurseryman.

We have in Ohio a little San Jose law, though not very drastic, and when we met—and I see before me here some of the Ohio nurserymen who were there with that committee—and found tree planters and farmers who wanted to draft the law so that every tree that was sold by a nurseryman, that ever, at any time, afterwards, had the ring-bone or spavine or the "buster," or anything else the matter with it, that nurseryman should be held for actual and prospective and vindictive damages, we did not let the bill pass.

Last winter, some time, some smart fellows across the line in the Dominion conceived a very brilliant idea, and although they had San Jose scale over in Canada in a number of places, they all at once, and of a sudden, without even moving an amendment and hardly taking time to make the previous question authoritative, passed a most drastic law, under which no trees could be shipped from the United States into Canada at all, and they claim as reasons for it that the San Jose scale was in some parts of the United States. (They are as plenty a thing as sparrows in Canada.)

And then across the ocean, within the last year, another wise set of solons in one of the countries—Mr. President, Sprechen Sie Deutsch? Parlez-vous Francais? Well, over there, where they sprechen Deutsch, in Germany, they were getting too many Golden Pippins and Ben Davis from out here in this wild and woolly western country; that attracted even the Germans, who do not like red, you know, and they were selling, as the saying goes, "like hot cakes," and then the great German reichstag, which means the parliament, put their heads together and concluded that on account of that awful, villainous insect, the San Jose scale, of which they had read in every horticultural paper in the United States, they had better not have any apples sent to Germany at all, any more, and so they passed laws prohibiting the introduction of all fruits from the United States, and they said it was on account of the San Jose scale. So that what we innocently sat down to learn about at our meetings, and went home and learned how to fight, and how to take care of, and how to watch our nursery, has proved to be in a number of cases a monster that turned upon us and nearly devoured us.

A man wrote me not very long ago from the peach region that his peach leaves were all affected by a new and wonderful disease, and he sent me one or two peach leaves in a letter, and he said he knew that it was caused by that new and terrific insect, the peach tree borer. I looked at the leaves, and they were affected, like a great many peaches are this year, on account of the cold and wet weather, with the curled leaf, and as to the peach tree borer being a new and very dangerous insect, especially new, I can say to you in all confidence, being a namesake of the great navigator, that he had them there,—those peach tree borers, in the Ark.

If an apple tree happen to have a knot of the woolly aphis, and a tree agent goes to deliver it, some wiseacre will tell him, at once, that there is a mark of a new and dangerous disease, and that he will be fully warranted in law not to touch it at all, and he don't touch it.

If I happen to get a few hundred grape vines from my friend Hubbard that have a few marks on it from a phylloxera that he has happened to overlook, even looking through his glasses, (and in all my forty years experience I have not known that it was such a dangerous thing,) he says, "There is a new disease, and I want you to take those grape vines right off my farm."

It is wonderful how little we used to know as nurserymen about the diseases of trees and plants, but it is super wonderful how much less the average man knows about a disease that has been taken, in a number of instances that I know of, as the cause and reason for refusing to accept trees that were in good and healthy condition, and throwing numerous lawsuits and expenses and trouble upon the nurseryman who has been living on such high prices (*nit*) for the last four or five years.

I have great respect for that class of "buggers"—I mean insect-searchers—who have endeavored to enlighten us nurserymen in regard to all the villainous insects that we have to contend with, but I have wondered a great deal in the last year whether it has been the very best thing to try to educate, in the papers, and by speeches and cuts, the average farmer so that he would know one insect from the other. It has had its effect, and its effect has been just as I have described,—

refusal to accept goods, lots of lawsuits and no profit to the nurseryman.

It is a serious question now what the next movement shall be. I fully believe if this national bill should pass, that would quiet a very large part of the trouble that we are likely to have in the next three or four years on this very insect legislation.

I shipped a bill of trees this spring, and the man sent me the money—trusting fellow—for the goods, before I shipped him the goods. I do not know how it is out West here, but in Ohio it is one of the sacred duties of a nurseryman never to return any money that is once given into his hands if he can possibly help it. Four weeks afterwards I was informed by this same customer to whom I had sent the trees, that the trees had not yet arrived, although they had only a little more than a hundred miles to travel, and went by one of the oldest express companies in the United States. When I made that complaint to the express agent and asked him why he did not forward these goods to a town some 25 miles from the state line, he said under the Michigan law he could not do it unless we sent with each consignment the original certificate that we had received from our state entomologist. As I wanted to send three or four orders out this spring, I have been in doubt as to which order I should send the original certificate of inspection with. The end of it is that the express company would not pay me back; that the man did not get his trees in time to do him any good, and that I have to pay the man back his fifteen dollars, and that is the worst part of it all. That is a case of a little "too much Kaintuck." And I think as nurserymen, while we have no right, and I have no disposition to condemn the good work that entomologists have done, we may, in having spent at least half our time for the last three years in our nurserymen's conventions listening to dissertations upon insects, we may have overdone the business just a little, and got a little too much "Kaintuck" into our business.

The committee on the president's address reported in favor of following the suggestions in the address. First, that the treasurer of the Association furnish a bond, the cost of the bond to be paid by the Association; second, that the Canadian exclusion act be referred to the committee on legislation, that committee to take such action as may be deemed advisable. The report was adopted and the recommendations were directed to be followed.

THE NEW OFFICERS.

Mr. Josselyn presented the report of the nominating committee of state vice-presidents, recommending the following list of officers of the Association for the ensuing fiscal year:

President—A. L. Brooke, North Topeka, Kan.

Vice-President—E. Albertson, Bridgeport, Ind.

Secretary—George C. Seager, Rochester, N. Y.

Treasurer—C. L. Yates, Rochester, N. Y.

Executive Committee—C. L. Watrous, Des Moines, Ia.; R. C. Berckmans, Augusta, Ga.; F. H. Stannard, Ottawa, Kan.

The vice-presidents decided to recommend that the Association meet in Chicago next year.

The report as to officers and place of meeting was adopted by the Association without discussion, the secretary casting one ballot for the officers named.

The following standing committees were afterwards appointed by the new president, Mr. Brooke:

Transportation—A. L. Brooke, ex-officio, chairman; Wm. Pitkin, Rochester, N. Y.; Peter Youngers, Geneva, Neb., W. J. Peters, Troy, O., and R. C. Berckmans, Augusta, Ga.

Legislation—C. L. Watrous, Des Moines, Ia.; N. H. Albaugh, Tadmor, O.; Silas Wilson, Atlantic, Ia.; and Thomas B. Meehan, Germantown, Pa.

Tariff—Irving Rouse, Rochester, N. Y.; J. J. Harrison, Painesville, O., and N. W. Hale, Knoxville, Tenn.

TARIFF ENFORCEMENT.

Mr. Brooke, while engaged in committee work, sent to the president's desk a resolution regarding the enforcement of the tariff schedule on nursery stock, condemning frauds on the government in the evasion of duties upon imported nursery stock, and providing that all known violations of the law be reported to the tariff committee. It failed for want of a second to the motion for its adoption. Professor Emery, of Montana, thought it would be unwise for the Association to go before the world and admit that it had falsifiers among its members.

Subsequently Mr. Brooke, returning to the floor of the convention said: "Some time ago I offered a resolution relating to the tariff. It was presented and read while I was engaged in committee work in another room and I did not have opportunity to speak upon it. I understand that it was not adopted."

The chair—"It was not seconded and therefore was not before the convention."

Mr. Brooke—"I desire to say to Professor Emery that I know of instances among foreign importers that meet just the conditions I sought in that resolution to guard against."

Professor Emery—"Give us the names."

Mr. Brooke—"I offered the resolution to back up the work of this Association on the tariff. If we have a tariff schedule on nursery stock as the result of our work and expense, we should have the courage to tell these men that they shall obey the laws of this country, names or no names. We asked for a tariff on nursery stock to protect us from cheap labor. Are we going to allow violations of that tariff after we have gotten it? I say we should have the courage to tell the American authorities that we are ready to back them up in the enforcement of the tariff law.

"Gentlemen, if we go out of this convention, not doing this, we shall make a great mistake. If this resolution is not what is wanted, we should have a committee appointed to draft a suitable resolution."

Z. K. Jewett—"We thought the resolution reflected upon American nurserymen. We did not understand that you referred to foreign concerns."

President Rouse—"I sympathize with Mr. Brooke in his endeavor to secure the enforcement of the tariff law, but I doubt that it can be gotten at in the way suggested. It is a delicate matter to handle. You cannot give the names very well. It is the plain duty of each member of this Association to expose immediately any violation of the tariff act that comes to his notice."

Mr. Brooke—"Do you think any one would do it?"

President Rouse—"As a matter of business I would expose any such violation of law within 24 hours after it came to my notice."

ASSOCIATION'S FINANCES.

A per diem allowance having been proposed in the case of some of the members of the committee on tariff who spent considerable time in Washington in getting favorable action on the tariff schedule, there was discussion on the subject in open convention. The report of the auditing committee was as follows:

"Your committee has examined accounts as per report of treasurer and find that all paid bills have been certified correct by executive committee; that balance is deposited, as reported

in bank in the name of American Association of Nurserymen.

"We find that there is not enough cash on hand to pay all bills now due; that receipts from published proceedings if as usual will square all accounts and recommend that secretary's, stenographer's and Union and Advertiser bills be paid first.

"In regard to balance of \$1,491.80 due from N. A. Whitney we find that Mr. Watrous, chairman of our executive committee finds that there is due from the estate of Mr. Whitney, now in the hands of an administrator, property to the value of \$8,000 to \$10,000 on which he has secured the first lien payable to the chairman of the executive committee from first payment made by the administrator. We recommend this settlement and believe that the money is secure and bill will be paid as soon as the estate can be settled.

"We find that bills of members of standing committee have been audited and paid, some of them containing a per diem charge of \$5 per day; others only for expenses. We have to suggest that all should be alike. If one member is entitled to per diem, all are."

William Pitkin, secretary and treasurer of Chase Brothers Co., Rochester, N. Y., asked if it were in order to discuss a matter that had been passed upon by the executive committee.

President Rouse—"I think so; yes sir, inasmuch as the committee's report has not been acted upon by the convention.

Mr. Pitkin—"There is strong objection to some of the accounts as presented. As I had the honor of being a joint member of the tariff committee of this and the Eastern Association, I am familiar with the work of the committee. I have no desire to belittle that work. Good work was done. But I am opposed to the payment to any member of the committee more than the actual expenses. It would establish a bad precedent to do otherwise. If the Association has got to the point where it must pay its members for their services on committees, per diem charges, then I think we had better disband and go home. (Applause.)

"Mr. President, I offer a resolution to the effect that no amounts for per diem charges in this or in future cases be paid to members of this Association. I will make that as an amendment to the auditing committee's report."

President Rouse—"I was a member of the tariff committee. Two of the members stayed in Washington against their own wishes and at the solicitation of the others on the committee, for the services of these two members were of great value at the capital in the furtherance of our object. But they felt that they could not spare the time from their business. I agree with the general proposition of Mr. Pitkin, but I hope some action will be taken to reimburse at least in part these two members for their extra labors in Washington in behalf of the Association."

Mr. Albaugh—"I did not put in any claim for a per diem allowance, but if the services of some of the members of the committee are deemed worth pay, perhaps mine will be."

Mr. Brooke—"As a member of the auditing committee I wish to say that the committee made no recommendations on the subject, for it believed that it had no right to do so. If any of the committeemen are to be paid a per diem allowance I think all should have it. The additional per diem allowance, not charged in the bill, would be about \$200. I want

to say that we have not the money on hand, but we will have it."

Mr. Albaugh—"I think the amendment is germane to the question."

Professor Emery—"I have done effective work for this convention and I never thought of a per diem allowance. I worked the better part of one fall and winter on the transportation committee work. I felt well repaid by the thanks of the Association and the satisfaction of having done good work for it. Whenever you pay your committees per diem allowances and it becomes known, you destroy the influence and the power of the committees to do good work for the Association."

Mr. Pitkin—"I wish to say that there was nothing personal in my objections. I do not know what members are referred to in connection with the per diem allowance."

The report of the auditing committee, as amended by Mr. Pitkin, was adopted without a dissenting vote.

TALK OF INCORPORATION.

Hon. C. L. Watrous was on the programme for "A Little Matter of Business." When the time came for him to speak he said: "I have thought that this Association should be incorporated under the laws of some state. As it is now if we have a defaulting treasurer, not being a legal body we cannot sue and recover. We can incorporate under the laws of Iowa, for instance, without any chance of there being individual expense and with but little cost for the incorporation. A corporation acting under the laws of one state is entitled to all the immunities of all states. I move that a committee of five be appointed charged with the duty of incorporating this Association, with the power of presenting suggestions and reporting to the Association at its next meeting."

Hon. Silas Wilson—"Why delay one year? I offer an amendment that the committee go ahead and incorporate. You well know Mr. President that if this Association had been incorporated it would be in a better position with regard to its finances than it is to-day.

Theodore S. Hubbard—"I think there would be trouble and delay in effecting an incorporation."

Mr. Watrous—"The statutes of Iowa state that any three persons may incorporate when the incorporation is not for pecuniary profit. In other states the provisions are very burdensome."

Colonel Pearsall—"It is the same way in Kansas. I am a director in four or five corporations in that state."

President Rouse—"I should not want the Association to be incorporated under the laws of New York state. There the directors are individually responsible."

Hon. N. H. Albaugh—"I have failed to hear stated yet any good reason for the incorporation of this Association. There may be times when it would be handy to be incorporated, so that we may sue; but there also may be times when it would be a great deal handier not to be incorporated, so that we cannot be sued. I am opposed to the proposition to incorporate."

A. L. Brooke—"I also am opposed to it."

Mr. Watrous—"But I personally could not sue to settle the accounts of our ex-treasurer. What are we going to do?"

Mr. Brooke—"Can we not direct you as chairman of the executive committee to sue, as well as we could if we were incorporated?"

Mr. Watrous—"Yes, I suppose so; but still I think we should

be incorporated. However, I will withdraw the resolution."

Mr. Wilson—"We are going to ask the treasurer to give bonds. To whom shall he furnish the bonds?"

Mr. Brooke—"The director system leads to rings. We do not want rings."

Mr. Watrous—"I am sure there was not the slightest thought of such a result in the proposal made here by me to-day."

Mr. Pitkin—"I move that the matter be laid on the table indefinitely." Carried.

Mr. Watrous—"I have withdrawn the resolution."

President Rouse—"This is the third time this subject has been brought up and dropped."

The convention adjourned until 1:30 p. m., June 9. This was only for the purpose of giving opportunity to bring up other business. As none was presented the adjournment was until next year.

EXHIBITS.

L. T. Sanders, Plain Dealing, La., exhibited samples of McKinney's May peach and Celestial fig, and plates of Eureka and Frances peach and Louisiana apple.

Robert C. Stoehr, of the Dayton Fruit Tree Label Co., Dayton, O., had an attractive display of labels of all kinds.

Marsden B. Fox, of the Rochester Lithographing Co., Rochester, N. Y., had a large display of plates for nurserymen's use.

Joseph Heinl, Jacksonville, Ill., exhibited roses and junipers.

PROTECTIVE ASSOCIATIONS.

The Nurserymen's Mutual Protective Association elected the following officers: President, N. H. Albaugh, Tadmor, O.; vice-president, W. C. Barry, Rochester, N. Y.; secretary-treasurer, George C. Seager, Rochester, N. Y.; executive committee, Irving Rouse, Rochester, N. Y.; E. Albertson, Bridgeport, Ind.; F. H. Stannard, Ottawa, Kan.

American Nurserymen's Protective Association officers were elected as follows: President, C. L. Watrous, Des Moines, Ia.; vice-president, Samuel Lorton, Davenport, Ia.; secretary, Thomas B. Meehan, Germantown, Pa.; treasurer, Wilson J. Peters, Troy, O.; executive committee, C. L. Watrous, Wilson J. Peters, C. H. Perkins, Newark, N. Y.

The American Retail Nurserymen's Protective Association on June 9 at Omaha re-elected its former officers as follows: President, J. W. Hill, Des Moines, Ia.; vice-president, F. H. Stannard, Ottawa, Kan.; secretary-treasurer, E. M. Sherman, Charles City, Ia.

VISIT TO SHENANDOAH.

On Friday after the convention adjourned, a party of eleven visited Shenandoah, Ia., as the guests of D. S. Lake and E. S. Welch, proprietors of the large nurseries at that place. They had a most enjoyable time and are enthusiastic in praise of the courtesy and hospitality extended. They highly commended all that was seen at the nurseries.

The party which was taken from Omaha and back without expense to the members was composed of A. J. Brown, of Youngers & Co., Geneva, Neb.; Z. K. Jewett, Sparta, Wis.; George J. Spear, Greeley, Colo.; Robert C. Berckmans, Augusta, Ga.; E. C. Ilgenfritz, Monroe, Mich.; Mr. Teas, of J. C. Teas & Co., Carthage, Mo.; E. Albertson, Bridgeport, Ind.; Mr. Marshall, of Marshall Brothers, Arlington, Neb.; John C. Chase, Derry, N. H.; H. J. Weber, Nursery, Mo.; L. G. Bragg, Kalamazoo, Mich.

The nurseries of Messrs. Lake and Welch were in fine condition. The proprietors generously explained details and seemed to enjoy the visit as much as did the guests, and that was a good deal. It was one of those pleasant side excursions that mark the conventions of the Association.

THE TRIP TO OMAHA.

Several parties were made up to and from the convention from the homes of the members and the pleasures of the trip were thus increased. The longest trip was that of the eastern members. Though the representation was not nearly as large as it will be next year, it was a merry party that left Buffalo on the night of June 5th, via the Wabash railroad for Chicago. The officials of that road seemed to have arranged especially for the comfort of the travelers, yet the accommodations were such as every traveler over that line receives. The party went on the Chicago flyer which leaves Buffalo at 8:30 p. m., and carries Wagner sleepers, dining car and free reclining chair cars. Fast time via Niagara Falls and St. Thomas over a smooth road-bed was made and Chicago was reached at 10 a. m.

From Chicago the party proceeded to Omaha via the Chicago, Rock Island and Pacific, long noted for its excellent service. The Rocky Mountain limited carried the nurserymen to and from the convention city in the shortest possible time. The equipment of trains on this road is unexcelled and the satisfaction expressed by its patrons is the best advertisement it could have. The connections throughout the West on the Rock Island are of the best.

A part of the party went via St. Louis from Chicago over the vestibuled limited and the continental limited of the Wabash line. The compartment cars on this road furnish the acme of modern travel at a minimum of cost to the traveler. Eastern roads might well adopt them.

Heavy rains throughout Missouri and Iowa had flooded field and forest. To a tenderfoot from the sun-kissed, Arcadian fields of the peaceful Genesee Valley in Western New York the most interesting sight by reason of its contrast, was the cyclone cellar close to the side or rear entrance of every farm house throughout the cyclone belt, mute evidence of the reality of the tales of destruction that have come out of the West, and standing arguments for the evergreen specialists who advocate "wind breaks."

SEED TRADE ASSOCIATION.

The sixteenth annual meeting of the American Seed Trade Association was held in Hotel Chamberlain, Old Point Comfort, Va., on June 14, 15 and 16. A hopeful feeling prevails among the members regarding the future of the seed business.

Officers elected were: President, E. B. Clark, Millford, Conn.; first vice-president, Jos. A. Bolgiano, Baltimore; second vice-president, Albert McCullough, Cincinnati; secretary and treasurer, S. F. Willard, with A. N. Clark, Millford, Conn., as assistant.

Executive Committee—J. B. Rice, Cambridge, N. Y.; W. Atlee Burpee, Philadelphia; I. B. Clark, Buffalo; C. E. Kendal, Cleveland; William Meggat, Wethersfield, Conn.

A. L. BROOKE.

The president of the American Association of Nurserymen, A. L. Brooke, was born on a farm near Lancaster, Fairfield county, Ohio, November 29, 1847. He is descended from the Brooke family so numerous in and about Philadelphia, his grandfather having gone from the New Jersey side at an early date, first to Canada and afterwards to Ohio. His father was born and lived and died in the same township, Greenfield, Fairfield county. He was a sober, sturdy, economical gentleman of the old abolition school of politics. His mother was a Brandt, from a family that emigrated from Cumberland county, Penn.

The subject of this sketch made his own way through the Fairfield Union Academy at Pleasantville, and afterward received the classical degree with the class of '72 at Wittenberg College, Springfield, Ohio. After he graduated, several years were spent teaching in Indiana. Then he returned to his native state and spent two years as principal of the Groveport public schools.

Mr. Brooke moved West in 1886 and settled at Topeka, Kansas. Desiring a more healthy vocation than teaching, he chose the nursery and farm. In fact he married into the business, his wife's family, that of William Taylor, Adams county, Penn., having engaged in the business for generations back.

He has grown steadily along until he has at the present time over 300 acres under his control. In the last few years he has become quite prominent in horticultural and nursery pursuits. He served his county as president of its horticultural society in 1897. He has been president of the Western Wholesale Nurserymen's Association for several years. He is a member of the American Nurserymen's Protective Association, and at the meeting at Omaha this year was elected president of the American Association of Nurserymen.

Mr. Brooke is at present a member of the Kansas legislature and will stand for re-election in a district that is strongly republican, which insures his return.

OVER-PRODUCTION IN FRUIT.

Professor L. B. Bailey, of Cornell University, made an address at the New Jersey Horticultural Society meeting, Trenton, N. J., on "The Problem of Over-Production of Fruit." He said that over-production was producing more of any product than the people within the range of its distribution can consume. Statistics can't indicate over-production unless they also consider the matter of transportation. That is, over-production as an economic fact is relative, not absolute. Among the remedies is increased consumption. The cheaper the product, however, the greater is the consumption, but an over-production in one year may increase the demand

for many subsequent years. The big apple crop of 1896 was sold in great numbers abroad and this year there is a great demand for American apples. The less perishable the product the less is the danger of over-production in any year; but on the other hand, the accumulation of the product may tend to restrict production. The greater the ease in raising a crop the greater the danger for over-production. Staples should be grown on cheap lands in large quantities and with the aid of labor-saving machinery. In proportion to the skill required in growing a crop, do the products fail or succeed on the general market. Special products are coming more and more in demand with the progress of civilization, especially in the cities. We must grow those things which can be shipped cheaply to a market. One man's labor can raise wheat to support 100 persons, but he can't raise more than five bushels of hot-house strawberries. Co-operative societies are successful only for the staples or the large area products, not for specialties. The grower should be paid only for the final product, not for the goods he delivers. Just the same as the dairyman is paid for the quality, and not the quantity of milk sold to creameries. The time is probably coming when the government will have officers to give definite advice in regard to markets. While we deplore the depopulation of rural communities, we forget that every person who leaves the farm ceases to be a producer and becomes a consumer, thereby extending the market for agricultural produce.



A. L. BROOKE.

ORDER SHEETS.

A recent decision of the postoffice department is to the effect that blank order sheets may be transmitted with catalogues, providing the sheets are permanently affixed to the book; that is, made a part of the catalogue. But they may be perforated or otherwise arranged so as to be readily removed. In this instance

the catalogues may be sent through the mails as third class matter, at two ounces for one cent. If, however, the order sheets are placed loosely between the leaves, the matter will be charged postage at fourth-class rates, one cent per ounce.

R. C. Berckmans is a member of the National Guard of Georgia. A special dispensation enabled him to attend the Omaha convention.

J. McHutchinson, who represented August Rhotert, the New York importer, at the Omaha convention, called on Rochester nurserymen on his way East.

Leslie & Son, 1164 Queen street, Toronto, have secured the contract for trees at Island park at the following prices: 200 Lombardy poplars, at 15 cents; 200 Balsam poplars, 20 cents; 1,000 assorted willows, 15 cents; 250 Manitoba maples, 20 cents; 500 Scotch elms, 25 cents; 250 European ash, 25 cents

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C. L. YATES, Proprietor.

RALPH T. OLCOTT, Editor.

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Six Months,	"	"	-	-	-	1.00

Advertising rates will be sent upon application. Advertisements should reach this office by the 20th of the month previous to the date of issue.

Payment in advance required for foreign advertisements.

 Drafts on New York or postal orders, instead of checks, are requested.

Correspondence from all points and articles of interest to nurserymen and horticulturists are cordially solicited.

AMERICAN ASSOCIATION OF NURSEYMEN.

President, A. L. Brooke, N. Topeka, Kan.; vice-president, E. Albertson, Bridgeport, Ind.; secretary, George C. Seager, Rochester, N. Y.; treasurer, C. L. Yates, Rochester, N. Y.

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Committee on Legislation—C. L. Watrous, Des Moines, Ia.; N. H. Albaugh, Tadmor, O.; Silas Wilson, Atlantic, Ia.; Thomas B. Meehan, Germantown, Pa.

Committee on Tariff—Irving Rouse, Rochester, N. Y.; J. J. Harrison, Painesville, O.; N. W. Hale, Knoxville, Tenn.

Annual convention for 1899—At Chicago, Ill., June 7, 8.

Entered in the Post Office at Rochester, as second-class matter.

ROCHESTER, N. Y., JULY, 1898.

THE ASSOCIATION MEETING.

One of the quietest conventions in the history of the American Association was that of 1898 at Omaha. The discussion on some of the topics presented did not develop as it had been expected it might, and, as the programme was short, the sessions did not extend beyond the first day. It was thought that the members would wish to spend considerable time at the exposition, but the majority remained about the Millard hotel and visited. There were many quiet chats in this way. Old acquaintances were strengthened and new ones were formed. A pleasant time was had all around, and some business was transacted.

It is probable, however, that sufficient time for chatting and sight seeing would be afforded during the two days and nights of the conventions if a more extended programme were prepared. The reading of long papers upon subjects that interest but a small portion of the members because the papers deal with a restricted territory or special conditions, is not to be

advocated. It has been found that a programme made up largely of the reading of papers on a June day when the members feel that their time at the convention city is limited and they wish to make it count for as much as possible, does not afford the most satisfaction. At the same time it has been noted that the discussions of popular topics has been entered into with spirit. They are many subjects in which the nurserymen are deeply interested. They discuss these subjects before and between and after the sessions of the convention in groups of two, or three or four, and in most cases these discussions are the most interesting and profitable of the meeting.

It would seem that some of the topics thus talked of in hotel corridors could be discussed in the convention to the mutual benefit of a much larger number. The prices of stock and the amount on the market or soon to come on the market, methods of growing the several varieties of stock, prospective fields for the development of business and many other kindred subjects, discussed under the guidance of the presiding officer in such manner as to bring out as many experiences as possible within a given time, would draw every member at the convention to all the sessions and would further result in a marked increase in attendance at the conventions. The Association is for the mutual benefit of its members. Whatever a member might impart as information would be almost certain to be balanced by what he would receive from the experience of another member on the same or some other subject. It would be strange if the most experienced member did not receive a valuable pointer during such a discussion, in these rapidly changing times.

The convention at Chicago next year would be a good one at which to try the plan of presenting a programme arranged carefully some time in advance and with especial reference to the subjects that are uppermost in the minds of the members; for up to date no exposition has been announced for the dates of the Association convention of 1899, and the sights of Chicago, strange as they are, ought to be familiar to most of the nurserymen by this time, so that counter attractions will be few.

THE OMAHA EXPOSITION.

Nurserymen who attended the Omaha exposition at the time of their convention were a little too early to see all the exhibits, the exposition having been but fairly opened. However, there was enough to keep their attention occupied for some time. The arrangement of buildings and grounds reminds one continually of the World's fair of Chicago. The lagoon and principal buildings, especially when illuminated by electricity at night, form a striking reproduction of the Chicago fair.

The horticulture building is the only main exposition building on the Bluff tract. Its size, compared with the buildings surrounding it, makes it the most conspicuous object in that part of the grounds, a dome 160 feet in height, covered with glass, surmounting the central portion of the building which is octagonal. On either side of the main entrance are groups of statuary representing "Night" and "Morning," the former festooned with night blooming cereus and the latter with morning glory. A quarter of the space under the dome has been taken by Douglass county, in which is situated Omaha, and Mr. Hess is managing this exhibit. L. C. Chapin has

charge of the state floral exhibit. Frank Wiggins, representing California, has one-half of one of the wings of the building. Considering the season of the year, the exhibits are very creditable. Later this building will be one of the principal points of attraction. The Trans-Mississippi states promise to be well represented.

WESTERN WHOLESALE ASSOCIATION.

The seventeenth semi-annual meeting of the Western Association of Wholesale Nurserymen was held at Omaha, Neb., June 7. President A. L. Brooke, presided. Eighteen firms were represented. The report of Colonel U. B. Pearsall, treasurer, was read and approved.

The transportation committee was requested to make an effort to get relief from present rulings upon part carloads in bulk stock; also to ask that baled stock be shipped at actual weight and in the original packages; also that a class be given to trees baled without straw or burlap, upon a proposition that the shipper release the railroads from all liability for damage upon such shipments.

A copy of the aggregate stock report for the spring of 1898 was given each member present and one was mailed to the absent members. Reports showed a decrease of matured stock of about 500,000 apple trees and 350,000 cherry plants. It shows an increase this spring of over 2,000,000 apple grafts and about 16,000 cherry stalks for budding. The total plant of apple grafts this season approximates 7,000,000.

After an interesting exchange of views upon the general condition of the nursery business, the meeting was adjourned until December 13th at the Centropolis hotel, Kansas City, Mo.

EVERGREEN WICHURIANA HYBRIDS.

Editor NATIONAL NURSERYMAN:

A notice of an exhibit before the Massachusetts Horticultural Society of these roses prompted me to see further what the witchery of the rose hybridist has been accomplishing.

Nurserymen are of course acquainted by this time with Mr. Manda's set of last year, Pink Roamer, South Orange Perfection, Manda's Triumph, etc., and in addition to their good qualities as covering plants for sun or shade or as climbers, it has now been ascertained that they are as free as Crimson Rambler when forced. Robert M. Gray tried a set of them at Julius Roerk's and found them very satisfactory.

But those to be sent out next year are even more luxuriant in their growth than the initial set. They have a somewhat different pollen parentage, and the surprising quality of retaining their foliage; at any rate during last winter. It seems in the case of one of them that a rose with much the qualities and appearance of the finest Cherokees will be available for a wide section of country.

Pollen of Perle des Jardins, Meteor and other forcing roses was used upon Wichuriana and the result has been a select set which will probably be offered next spring. Gardenieflora is a trailing or climbing rose with bright yellow buds quite as good in color as the Perle, with open flowers, lighter, and in shape suggesting Gardenia Fortunei—hence the name.

Jersey beauty is to my mind the most beautiful plant of the set with beautiful dark green shining foliage, large single white

flowers expanding to three inches, and a mass of golden stamen. The plant as yet unnamed selected from the Meteor cross is a beauty too, with fine full double flowers of the La France shade of pink.

Several others are under trial, but it is probable the three mentioned will be on the market as their merit is certain, and the stock well advanced. To those who have never seen Manda's place, I would say call on him at South Orange, New Jersey. It is a revelation in rare plants.

Trenton, N. J.

JAMES MACPHERSON.

AN OMAHA LESSON.

Editor NATIONAL NURSERYMAN:

A number of things were suggested by the Omaha convention for the improvement of the American Association. One of the principal lessons learned is the necessity for the arrangement of quarters for the members at conventions by a committee of the Association. Last year at St. Louis it was conceded by the western members that the convention of 1898 was due in the East. It is probable that but for the assurances of Professor F. W. Taylor of Lincoln, Neb., the convention this year would have been at least no further west than Chicago. Now I have long been a member of the Association and I believe it has an important work to perform. But so long as it follows the beckoning of any one member regardless of the wishes of a large number of members it will not be of the greatest good to all.

We are induced to go to Omaha by Professor Taylor's representations. There was disappointment as the result from the moment the members arrived. I understand that the hotel for the headquarters of the convention was selected largely, if not entirely, through the efforts of Professor Taylor. Notwithstanding the promises of Professor Taylor that there would be ample hotel room for the members, it was found that the hotel was so filled when the nurserymen arrived that only by a series of changes could they be accommodated. As a consequence several of the nurserymen sought accommodations elsewhere.

At the close of one of the sessions of the convention Professor Taylor sent an invitation to the members to visit the exposition. When they assembled at the hour named Professor Taylor could not be found and there was much dissatisfaction again.

The programme of the convention included announcement of a paper by Professor Taylor on "Relation of Agriculture to the Exposition." But, although it was called for twice by the president, Professor Taylor could not be found.

Doubtless Professor Taylor has some explanation, but it is probable that it would not be made, if this does not draw it out; for I have heard of none and the convention was held two weeks ago. The dissatisfaction these things caused was not confined to a few.

REGULAR ATTENDANT.

The St. Petersburg *Novosti* states that Mr. Fetisoff, an amateur botanist in Voronezh has succeeded after ten years' persistent experiments, in cultivating roses of a pure black color. These new black roses, it is further stated, will be exhibited shortly in London.

Among Growers and Dealers.

P. S. Peterson, of Chicago, is at a sanitarium.

Freight rates from Southern French ports have advanced 10%.

George Brothers, Penfield, N. Y., has two-year roses on own roots.

Joseph D. Sweet, Norwich, Conn., has entered the nursery business.

W. E. Garrat, it is reported, will enter the nursery business at Eagle Grove, Ia.

J. E. Heine Nursery Co., Orwigsburg, Pa., want experienced peach budders for fall.

Grape vines are the articles for which T. S. Hubbard, Fredonia, N. Y., is noted.

Gardner & Son, Osage, Ia., presents a list of stock for fall of 1898 and spring of 1899.

William Fell, Hexham, England, says he has a striking novelty in the Comet red currant.

Raffia and Mazzard cherry seed are specialties with Thomas Meehan & Sons, Germantown, Pa.

August Rhotert, of New York, sailed for Europe on June 20th. He will return in September.

Pears, standard and dwarf, and plums can be had at low prices of D. H. Patty, Geneva, N. Y.

John C. Chase, Derry, N. H., called on New York state nurserymen on his return from Omaha.

General John C. Graves has succeeded William McMillan as superintendent of parks of Buffalo, N. Y.

Benjamin Chase, Derry, N. H., calls attention in an attractive manner in this issue to his wood labels.

Thomas Edwards, New Brighton, Pa., has retired from the nursery business. He is succeeded by his son.

The Phoenix Nursery Co., Bloomington, Ill., established in 1852 offer a large and choice collection of roses.

President Brooke of the American Association has added thirty-five acres to his nursery at North Topeka, Kan.

The Spaulding Nursery Co., Spaulding, Ill., have a July sale of Kieffer, Garber and other pears, besides general stock.

J. Rice & Sons, Geneva, N. Y., are wholesale growers of apple, pear, peach, cherry, plum and quince trees; also ornamentals.

Professor M. V. Slingerland is strongly endorsed for New York state entomologist to succeed the late Professor J. A. Lintner.

W. F. Heikes, Huntsville, Ala., has started a nursery at Benton Harbor, Mich., for the propagation of rose, peach and plum trees.

Yellow Rambler roses, Cumberland and Iceberg blackberries are chief features of the trade of Jackson & Perkins Co., Newark, N. Y.

Peters & Skinner, North Topeka, Kansas, have presented the fire department fifty rose plants which have been set out about the fire station.

Owing to the recent death of Mr. Watson, the firm of Ellwanger & Barry, Rochester, N. Y., was not represented at the Omaha convention.

J. E. Killen, representing C. H. Joosten, the New York importer, sent a telegram from Rockford, Ill., stating his inability to get to the convention.

The number of directors of the Allen Nursery Co., Rochester, N. Y., has been decreased and the capital stock has been increased from \$6,000 to \$10,000.

Twenty-two years ago the business conducted by Allen L. Wood, Rochester, N. Y., was established. He has small fruit plants practically without number.

L. A. Berckmans, Augusta, Ga., is treasurer of the Georgia Horticultural Society which will hold its twenty-second annual meeting at Americus, Ga., August 3—5.

The Dayton Fruit Tree Label Co., Dayton, O., packs 2½ inch printed and wired labels in cartoons of 1,000 each, the outside of the cartoon showing the cartoon.

The Furness Nursery Company, Indianapolis, Ind., has been incorporated with a capital of \$10,000. The company will cultivate and sell fruit and shade trees and other nursery stock.

French nursery stocks, fruit tree seedlings and ornamentals in complete assortment are offered by E. T. Dickinson, Chatenay, France, who has an office at 1 Broadway, New York city.

L. G. Bragg, Kalamazoo, Mich., enjoyed renewing acquaintances at the convention. He said he learned to ride a bicycle early in 1897 and therefore could not attend the St. Louis convention.

As announced on another page, Storrs & Harrison Co., Painesville, O., grow as healthy and hardy nursery stock as can be found in this country. Their stock is standard as to quality in all branches.

There is pending in congress a bill to authorize and encourage the holding of a National Exposition of American Products and Manufactures, especially suited for export, at Philadelphia in 1899.

William Krueger, of Oxford, Ia., has purchased the half interest of W. Owens in the Gould Nursery at Rolling Prairie, Ia., which has been planted to 19,000 new trees and will be run in connection with the Krueger Nursery.

A woman 48 years old and her daughter aged 17, went to the botanical garden in Bronx park, New York, and cut ferns to the value of \$200. They told the police sergeant that they wanted the ferns for the young woman's birthday party.

W. T. Hood, Baltimore, Md., does not wish to sell more than one-half interest in the nursery business he has established and does not expect to give up the business if he does not sell. The Old Dominion Nursery is owned and conducted by W. T. Hood.

J. G. Harrison Sons, Berlin, Md., are making a specialty of peach buds for 60 days. Waddell, Casman, Emma, Bokara, Connecticut, Greensboro, Eureka, McIntoch, Fitzgerald and Lorentz are among the new ones. A full list, regular varieties at a fair price. See outside cover page.

Charles J. Brown, of Brown Brothers, Rochester, N. Y., has received new honors. He had been out of the office of president of the Rochester Chamber of Commerce but a short time when he was chosen chairman of the Monroe County republican committee, an important position in Western New York politics.

PRESENT CONDITIONS.

Discussed by Frederick W. Kelsey—Advocates Self-Reliance as Opposed to Dependence Upon Legislative Acts—Inquiry as to Causes of Low Prices—Readjust Market Conditions.

Editor NATIONAL NURSERYMAN :

The unfavorable reports as to the condition of the nursery business, naturally suggest an inquiry as to the causes. Notwithstanding occasional panics, local disadvantages and the present adverse conditions incident to a causeless foreign war, the country is growing rapidly in wealth and population, and there would seem to be no valid reason other than that of inherent condition why the nursery business should not be generally as prosperous as the average of other industrial and commercial enterprises.

Mr. Hale's statement of the case in the May number of the NURSERYMAN may appear extreme or even pessimistic to the sanguine ; but there is no question that some of the causes he gives for the present demoralization of prices for nursery products are well founded in fact. The policy of sending special trade lists made up on the bargain counter principle to every possible purchaser even in the smallest quantities, has much the same effect in the end as the plan of offering "Everything for nothing with a chromo thrown in." Both buyer and seller under these methods soon lose all thought of real value and the business becomes a scramble, to the ultimate ruin of the one and the questionable advantage of the other. It is under such conditions that the survival of the fittest principle is exemplified and I believe as a general rule those who inaugurate and endeavor to carry out these methods are sooner or later, and finally, the greatest sufferers. Several concerns that have been trying this plan have reached the limit of necessary credit for carrying on business, while more conservative houses that have retained correct and substantial methods, find they are in condition to take advantage of the present and future possibility of the trade.

The successful men are not those who, Sampson-like of old, pull down the whole structural conditions of the business they are engaged in, but rather those who hold to reliable principles and build up the general conditions concurrent with their success.

Another potent cause for the present unfavorable situation is unquestionably the trend of late years to substitute legislation for self-reliance ; to secure favors and benefits from vested authority rather than from individual action.

The efforts for an excessive or prohibitory tariff and the hue and cry over interstate insect legislation, are merely manifestations of this tendency. Every effort to improve existing conditions by artificial barriers to the natural laws of trade are inevitably disappointing, and doomed to eventual failure. The reaction is worse than the action.

Instead of increasing our own resources by better production and improved methods we look to coercive or restrictive legislation to exclude outside products, only to find an additional burden of cost in excessive duties, with now the home markets in worse condition than before.

It must be anything but gratifying to those who favored the present duty on fruit stocks now to pay this increased cost while the grown products, fruit trees, etc., are selling at lower prices than ever before in the history of the country.

Equally disappointing will be the attempt to eradicate the San Jose scale and similar insect pests through interstate quarantine regulations. The craze for legislation on this point seems to have about run its course, but the unpleasant reminders from the action of Germany and Canada in excluding American fruits and nursery products indicate the extent to which harm and injury can result from ill-advised legislation even where there is not the least perceptible benefit or advantage.

The new tariff law was hardly printed on the statute books before the underlying causes creating present conditions were going on just as they had been—and will continue, tariff or no tariff—until market conditions (quality, supply and demand), are re-adjusted on an improved basis. A Chinese wall of exclusion against foreign countries or between the states here would not, for it could not, prevent an utterly demoralized market alike ruinous to all trade interests, wherever the methods of the New York nurserymen described in Mr. Hale's letter prevail.

The ink is yet fresh on the various scale laws of the different states, when it is found that the intended remedy is worse than the disease ; that kind nature and self interest are the best preventives against insect pest encroachment ; and that the attempt to legislate such pests out of existence by quarantine restrictions is likely to meet with much the same degree of success as would be the effort to legislate the "air above or the water beneath."

When we in the nursery interests come to recognize the same fundamental principles that determine the success of other business undertakings— a study of the real conditions of supply and demand, the adaptation of resources to these underlying causes rather than confidence in artificially created conditions—the results will be less varying and on the average to the large number engaged in the business, generally more satisfactory.

New York, June, 1898.

FREDERICK W. KELSEY.

AUSTRIA FEARS THE SCALE.

The state department at Washington, D. C., has a copy of a proclamation issued by the Austrian Minister of Agriculture of the interior, of finance and commerce, prohibiting the importation from America of live plants, cuttings, seedlings and refuse from fresh plants of any kind, also the barrels, boxes and all other articles which have been used in the packing of such plants or refuse. This action is taken for the purpose of preventing the introduction of the San Jose scale from America.

GETS THERE JUST THE SAME.

Regarding the San Jose scale *Meehan's Monthly* says : "The insect already exists in most places, and, if not, can easily get there in a multitude of ways aside from traveling by nursery stock. The Colorado potato beetle simply took a ride on a railroad train for the East ; and the scale can get across the Canadian line on a bird's foot or feather just as well as on a tree, and no doubt can breed just as well on a native forest tree as on any tree from a nursery."

Canadian journals please copy.

CONDITIONS IN CANADA.

Commenting on the exclusion act the *Canadian Horticulturist* says :

"The price of nursery stock has not advanced, notwithstanding the exclusion of United States stock, and nobody seems seriously inconvenienced by the San Jose scale act. American nurserymen who had made sales in Canada, have simply bought their stock wholesale from Canadian nurserymen, and packed their orders this side of the line ; while the surplus was so great in Canada, that fine trees have been almost given away. Fancy, beautiful pear trees, three years of age, wholesaling at from 7 to 10 cents each and peach trees at 5 cents, when a few years ago they could not be bought for less than three times these prices.

"Strange that when peach and pear trees are so cheap, our growers do not seize the opportunity of planting largely. Discouraged by the low prices of one or two seasons, they have given up these fruits, and encouraged by the high price of apples in 1897, all want to plant apple orchards. Mr. W. E. Wellington says that the Fonthill Nurseries sent out over 300,000 apple trees this spring ! Next year, should apples be cheap, no doubt our fruit growers will again begin digging out their apple orchards. Why this unrest ? There is rise and depression in all lines, and the wise man keeps straight on in his chosen lines, whether he is on the crest of the wave, or in its hollow."

DELAWARE SCALE LAW.

Editor NATIONAL NURSERYMAN :

Regarding legislation in Delaware relative to the San Jose scale, I beg to state that the legislature has adjourned without making any provision for a state board of agriculture, although the new constitution requires such action. The next legislature will, therefore, have the question to deal with when it meets next January. The work of inspection under the law enacted in 1897 will go on. Under it the scale was greatly reduced last year and will no doubt be eradicated entirely in several localities where it has existed.

Dover, Del., June 10, 1898.

WESLEY WEBB.

WESTERN NEW YORK FRUIT.

At this season of the year says the *Rural New Yorker*, there are always demands for authentic information regarding fruit prospects. Western New York is a vast fruit garden, and the crop it produces has much to do with the market supplies. S. D. Willard of Ontario county, N. Y., writing of fruit prospects, says that the outlook for the fruit growers is not satisfactory. Currants produce a light crop except Pres. Wilder. Gooseberries are good, with a tendency to mildew. Lombard, Bradshaw, and some other plums are a failure ; Reine Claude and a few other sorts promise a partial crop. As a whole, plums in that region are about one-third last season's product. Bartlett pears are scarcely more than one-third of a setting. Kieffer shows up best of any variety. Cherries are not equal to the crop of '97, but afford a fair showing.

Apples promise well, but it is yet too early to venture an opinion as to the result. The tent caterpillar, in its ravages,

exceeds anything he has ever known. They have, for several weeks, been engaged in destroying its nests by a systematic weekly effort, and have handled nearly 2,000 of them, while with the masses neglect has been the order of the day, and the result remains to be seen. The curl leaf has worked injury to the peach orchards beyond description, in many instances entirely defoliating the trees, with a probability of greatly reducing the crop.

NOVA SCOTIA FRUIT GROWERS.

At the thirty-fourth annual meeting of the Nova Scotia Fruit Growers, held recently, President J. W. Bigelow, of Wolfville, in his address said : "The San Jose scale has invaded fruit trees in all parts of this continent, and is the most destructive and difficult to destroy of any insect pest. It is not yet known to be in Nova Scotia, and you will be called upon to recommend strong legislation to prevent its appearance here. The man who plants an imported nursery tree in Nova Scotia this year is his own worst enemy, and should be dreaded and despised by fruit growers generally."

The matter was referred to a committee, with instructions to draft a bill which should give to orchardists the best protection possible.

ILLINOIS HORTICULTURE.

In a recent article J. C. Blair of the University of Illinois, said :

The state of Illinois ranks as the third greatest horticultural state in the Union, California being first and New York second. According to statistics, however, New York will rank first and Illinois second. Illinois has \$4,777,083 of capital invested in nurseries, standing next to New York and California in this respect. In acreage of nursery trees Illinois has just forty-nine acres less than New York, but in total acreage of all nursery plants Illinois is first. In the number of acres of apple trees Illinois stands first, with 1,016 acres of one, two, and three year trees more than New York. In acreage of plums Illinois stands first, as also in strawberries and hardy shrubs. The total value of cut flower sales in this state is second to that in New York.

Obituary.

Edward Tatnall, Wilmington, Del., an octogenarian, died June 3. He was in the nursery business for many years and was superintendent of city parks.

Cornelius S. Cole, aged 82, died at Spencerport, N. Y., May 27. He was engaged in the nursery business for more than thirty years. A widow and one son, George M., survive him.

William George Watson died June 3, at his home, 233 Mt. Hope avenue, Rochester, N. Y., aged 69 years. Mr. Watson was the business manager of the firm of Ellwanger & Barry, and had been an employe of the firm for 43 years. He was born in Belfast, Ireland, and came to this country and to Rochester 45 years ago. Soon afterward he entered the employment of the firm which he served faithfully for so many years. Mr. Watson possessed marked business ability, and was of upright character. All who knew him speak in the highest terms of his character, and his employers praise him for his faithfulness, his ability and his manhood. Mr. Watson leaves besides his wife, three sons and four daughters.

THE HONEST TREE AGENT.

J. S. Harris, La Crescent, Minn., in his calendar in the *Minnesota Horticulturist*, concludes his advice to horticulturists as follows:

"Finally, remember the traveling tree agent, do not let him persuade you that Minnesota nursery stock is worthless for planting in this climate, that Minnesota nurserymen do not know how to propagate trees anyway or what varieties are best adapted for you. Do not invest largely in novelties until you have some knowledge of them beyond what the agent has imparted, and remember to examine all contracts and orders carefully before signing your name to them. Figs do not grow on thistles nor strawberries on trees."

And an exchange which has been publishing some pointed remarks about the tree peddler, has been asked by a Collinsville, Conn., man to publish the following, which appeared in a recent issue of that weekly:

"Let me suggest that the *Rural New Yorker* has, in the past, had several articles, most severely condemning tree agents. While many are certainly rascals, it is equally certain that many are strictly honest and honorable in their dealings. Some of the best firms, such as Ellwanger & Barry, send agents, who certainly sell good stock. Many others, like myself, do a small business of our own, buying of large nurseries. Stephen Hoyt's Sons, of whom I buy what stock I do not raise, sell nearly all their stock to dealers, and their trees, I think, rank as high as any. The higher prices charged by agents are balanced by the delivery of the goods, the guaranty of a free replacing of trees dying the first year, and the fact that the trees sold by agents—honest agents, I mean—usually grade higher than those sent out by the cheap nurseries. So when some one sends in an article giving a wholesale condemnation of all tree agents, please add a word that there are some agents who are not swindlers, while there has not yet been found a business into which some rascals did not enter."

Recent Publications.

Part I. of the transactions of the Massachusetts Horticultural Society for 1897, issued by Secretary Robert Manning, contains valuable papers on "Spread of Plant Diseases," by Dr. E. F. Smith, of Washington, D. C.; "Horticulture in Canada," by Professor William Saunders, of Ottawa, Can.; "Tropical Horticulture," by Professor George Lincoln Goodale, of Harvard University.

The fortieth annual report of the Horticultural Society of Missouri, for 1897, will be read with interest. Through the efforts of this society the fruit growing industry of the state has been greatly advanced. The practical experience of such men as J. C. Evans, N. F. Murray, Samuel Miller, L. A. Goodman, A. Nelson and other horticulturists is of much value. L. A. Goodman, Moberly, Mo., is secretary.

U. S. Department of Agriculture publications: "Historical Sketch of the U. S. Department of Agriculture; Its Objects and Present Organization." Compiled by Charles H. Greathouse, of the division of publications. Pp. 74, pls. 2, figs. 9. "Forestry Conditions and Interests of Wisconsin." By Filibert Roth, special agent, with a discussion by B. E. Fernow, chief, division of forestry. Pp. 76, map 1. Experiment Station Record, Vol. IX, Nos. 9 and 10.

The third annual report of the Chief Fire Warden of Minnesota has just been published. From this it appears that according to the reports of fire wardens, the damage done by forest fires in 1897 was \$22,455, and by prairie fires \$14,554. There were periods of protracted dry weather both in the spring and autumn. Considering that the

value of the standing timber in Minnesota is \$100,000,000, the reported damage by forest fires is regarded as very small. The opinion of the chemist at the University of Minnesota is quoted that an average prairie fire will remove more nitrogen from the soil than five ordinary crops of wheat.

The year book of the Department of Agriculture for 1897 has been issued. It is a volume of 992 pages and is divided into four parts. The first consists of the annual report of the Secretary of Agriculture for the fiscal year 1897 and covers the operations of the department for the year. The eighteen miscellaneous papers, which form the third part, were prepared by the chiefs of bureaus and divisions and their expert assistants. They cover a variety of subjects and illustrate the extent and variety of the scientific work of the department. One of these papers discusses the fruit industry. The fourth part, an appendix, contains statistical matter for reference.

"Vandegrift's U. S. Tariff for 1897," revised to March 1, 1898, is the largest and most complete tariff digest ever published. Over twenty thousand articles are named with paragraph of law, rate of duty and wherever a decision has been made the decision is quoted after the article; making the work indispensable to all having dealings with the tariff. Much other information is contained in the book, viz: Foreign express tariff to all parts of the world; the customs administrative act as amended, a complete list of drawback articles; all weights, measures and coins of foreign countries reduced to their United States equivalents; established rates of tare; capacity of bottles; standard gauge of sheet and plate iron; in fact, a veritable encyclopedia on the tariff. New York and Philadelphia: F. B. VANDEGRIFT & Co.



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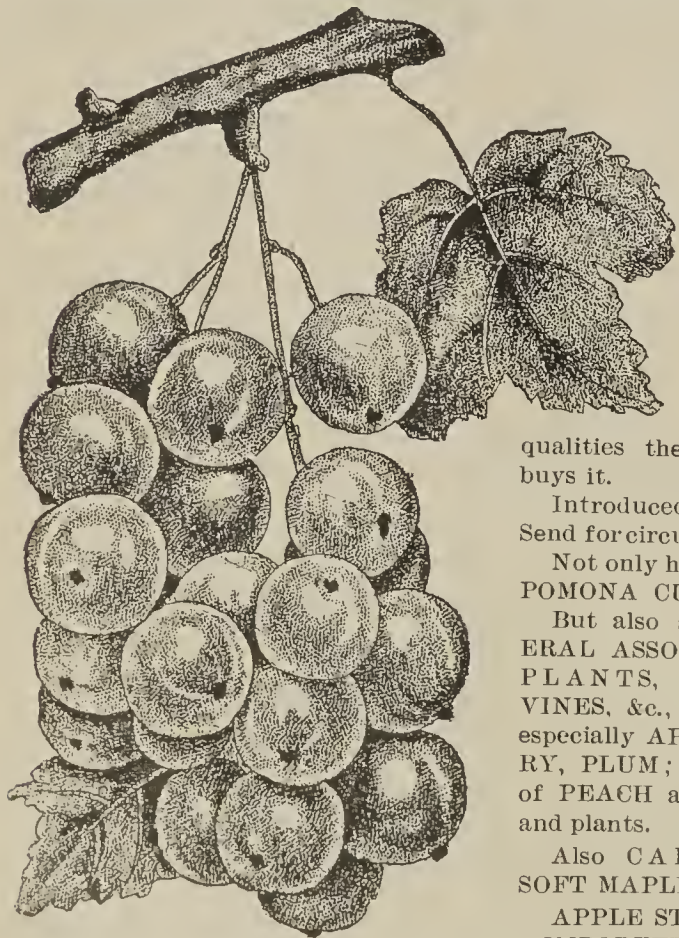
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The National Nurseryman.

FOR GROWERS AND DEALERS IN NURSERY STOCK.

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VOL. VI.

ROCHESTER, N. Y., AUGUST, 1898.

No. 7.

IMPROVING VARIETIES.

The Importance of Bud Selection in Plant Breeding—No Two Buds or Fruits Are Exactly Alike—Definite Laws of Horticulture Should Be Observed—As To Seedlings.

An instructive paper on the application of plant breeding through bud selection to the improvement of varieties was read by G. H. Powell, horticulturist of the Delaware Experiment Station at the tenth annual meeting of the Peninsula Horticultural Society at Milford, Del. In the course of his paper he said :

Every bud on a tree produces an offspring which can be distinguished from every other offspring, just as every seedling. The distinction between a seedling variety and the fruits produced on a single tree lies only in the degree of difference between them. The reason for this is that no two trees or no two buds on a tree exist in exactly the same conditions of life. The tree should be considered not as a single individual, but as a collection of individuals, with the bud as the unit. Among the many individuals, or buds, on the tree there is the most intense struggle for existence. Some buds receive more light, more air, more room in which to grow and expand, and more plant food, and from these unequal conditions there result strong branches, weak branches, long branches, short branches, dead branches. In fact, no two branches are ever alike because no two are placed in exactly the same conditions.

In the same way, no two fruits are ever produced exactly alike because the buds from which they came and the conditions in which they develop are always slightly different. So it happens that in an Elberta peach tree, the fruits will be large or small, roundish or pointed, highly colored or pale, or some other peculiarity distinguishes one peach from every other peach.

This variation existing in the buds of a tree is one of the most important principles underlying all vegetable life, and is particularly important in horticultural operations, because the variations which are manifest in the buds of a plant are transmitted through propagation.

BEARING TREES.

I need not go into extended reasoning to convince you that variation does exist in the buds of a tree, or in trees themselves. You have only to go out into an apple orchard and examine the different branches or trees. The practical fruit grower knows that some trees never bear, that some trees occasionally bear, and that some trees always bear. Further, if he were to examine the branches of a single tree through a series of years, he would find the same phenomenon pertaining to individual branches.

I have in mind a currant plantation which contains some ten thousand Fay's Prolific bushes, which came directly or indirectly through cuttings from 25 Fays, purchased at \$1

each some ten or twelve years ago. The original bushes were uniform in size and heavy bearers. As the Fay currant was one of the best varieties extant twelve years ago, and the plants were scarce, the cheapest way to secure a plantation was to take cuttings from a few bushes. In the haste for a large number of plants, the new wood was cut from these bushes every fall. When more bushes were established, they were divided into cuttings as fast as new wood was made. Little attention was paid to the bearing capacity of the bushes, in the second generation, from which the cuttings were taken, because the original twenty-five were exceptionally heavy bearers. The result at the present time is 12,000 Fays, some of which are tremendous bearers, others light bearers, while still others produce no fruit at all.

A REASON GIVEN.

The question arises, how could this condition have happened if there is not the widest variation in bearing tendencies in the buds of the Fay's currant? It may be answered that the soil in which the plants grew was the immediate cause of these wide variations in the Fay plantation. But this is not true as the soil is uniform and in a high state of culture, and the Fay is an uncertain bearer everywhere. The explanation, it seems to me is not difficult to understand. When the Fay was first introduced every currant grower wanted Fays and it was necessary for the propagators to use all the available wood produced, without reference to the bearing habit or constitution of the bushes from which the wood was taken. Now if a hundred cuttings are taken from a bush that seldom bears, we have simply started one hundred new bushes with a similar tendency, and if a hundred are taken from a bush that always bears, the bearing habit is likely to be transmitted to the new bushes. This reasoning is not theoretical, for I can point out an extensive currant grower who can maintain the standard of his varieties only by the most careful selection of cuttings from bushes that always bear.

I wish now to point out the value of bud variations and indicate, if possible, a few lines which might be followed by horticulturists to the gradual improvement of present varieties.

If the differences in the buds of a tree can be propagated by grafting or budding or by other means, then here is a principle on which to begin the systematic improvement of existing varieties. The propagator has only to form a clear idea of the type of Baldwin or Spy he desires and then to select through each generation buds from branches which bear Baldwins or Spys approaching his ideal.

There are numerous examples of bud variations in the various strains of Baldwins, Greenings, or Crawford's. These strains are simply bud variations induced by climate or other causes. In Virginia the Albemarle or Newtown Pippin differs from the New York Newtown. In Oregon the apple has slight ridges around the stem and the fruit is oblong in form; while in New South Wales, Australia, the ridges are so pronounced that the apple is called the Five Crowned Pippin.

Horticulture in its variety making and improving is not founded on any law which assures improvement in the organic world. Nature builds up her types gradually, but all the more surely, by the selection in each generation of variations which give the survivors some slight advantage over the individuals already existing. This process has been called by Darwin, "Natural Selection;" by Spencer, "The Survival of the Fittest," and recently by Prof. Bailey, "The Survival of the Unlike," all of which are synonymous expressions.

Yet we are constantly endeavoring to build up horticulture in the very way that nature condemns, namely, through the promiscuous production of new forms or new seedlings. A seedling variety is discovered, not produced. It is not founded on a law of organic progress. A bushel of seed is sown, but the sower can only hope for something good to turn up. He never knows that an improved variety will appear, nor has he reason to expect it, because the operation rests on the element of chance, not on the laws of plant evolution.

I do not wish to condemn the production of seedlings from judicious crosses of selected parents, because in that process are included the intelligence of the operator and a knowledge of the laws of plant crossing; but I do want to emphasize the fact that horticulture is old enough now to rest on definite laws of its own and that those laws should act in conformity with the principles underlying the evolution of the vegetable kingdom.

It seems strange that the slight differences which appear in the buds of a tree should not have formed the basis for the systematic improvement of orchard varieties.

THE PRESENT SYSTEM.

Horticulturists have never made a systematic attempt to improve a variety after it once appears, or even to maintain its standard of excellence, for improvement has ever been looked for through new varieties. The present system of propagating fruits in the nursery or on the farm, as followed by most fruit growers, tends to deteriorate a variety. Buds are selected from bearing trees or non-bearing trees, or from nursery trees. The effect in every case is to transmit the tendency already existing in the bud to the new tree, and as a result there are orchards scattered all over the country in which are many trees, that, even with the highest culture, will not pay the interest on the land they occupy. Nine orchards in every ten have been propagated with no more care in selecting the buds from which the trees came than was exercised in the propagation of the Fay's plantation already mentioned. On a large fruit farm with which I have been connected, this principle is considered so important that every young orchard is top worked with buds from trees which have shown a bearing habit for years.

THE APPLE CROP.

The government apple report, says the outlook is very discouraging; that of the 14 apple growing states 11 report a lower average of condition than at a corresponding date last year. The yield of winter fruit promises uneven in both quantity and quality throughout practically the entire orchard belt, west and east. In Michigan there is the best promise of a crop.

THE ENGLISH GARDENER.

Nursery employees of this country can compare with satisfaction the requirements they meet, with those of the English gardener. An advertisement for a situation by a gardener in England brought the following statement of particulars, says *Gardener's Chronicle*, London:

Please give following particulars: 1. Name and address of references. 2. Length of character. 3. Cause of leaving last two situations. 4. Did you or your employer give notice? 5. When disengaged. 6. How long out of situation? 7. What wages have you been receiving? 8. What position have you held in last two situations? 9. Age, height, married or single, and what family? 10. Have you any knowledge of bee-keeping? 11. Are you strong, healthy, and an abstainer? 12. Have you been accustomed to use a scythe? 13. Can you give a good character for qualifications and good temper? 14. Please give an outline of your career, and the work you have been accustomed to do since (*sic*) the last twelve years.

I require a strong, healthy, active, quick, willing and obliging man, who thoroughly understands the routine of a gentleman's small place; methodical, systematic, and orderly, in his habits, punctual, and an abstainer. Must thoroughly understand the cultivation of fruit, vegetables, and flowers. The duties I should require outside garden-work are—carrying coals, cleaning boots (no knives), cleaning windows outside, and making himself useful when necessity requires. My place is small, about $\frac{3}{4}$ to one acre in all, small conservatory and greenhouse, and a few frames. We are three in family. You would have no assistance. We take an interest in our garden, and work it ourselves sometimes.

The wages I give to a thoroughly experienced single-handed gardener, who comes with a good character, are from £55 to £65 a year (payable monthly, calendar month, not four weekly) with a calendar month's notice on either side from any date, and at the end of the first year's service a rise of £3. There is no cottage, and you would have to live off the premises, finding your own lodgings. Your working hours would be: From March 15 to November 1, from 6 a. m. to 6 p. m.; from November 1 to February 15, from 7 a. m. to 5:30 p. m.; from February 15 to March 15, from 7 a. m. to 6 p. m., with one hour for dinner, half-an-hour for breakfast, and a quarter-of-an-hour for tea, which the gardener brought with him. On Sundays your work would be the usual necessities only: boots, coals, watering, &c., and if on week-days it is necessary to water the garden after 6 o'clock on account of the heat, I would require you to do so; and in winter you would have to return at 8 or 8:30 p. m. to attend to the conservatory and greenhouse fires. Cottages can be obtained here for about £10 a year, and furnished rooms from 2s. 6d. to 4s.

MR. BROOKE'S RESOLUTIONS.

Following is the resolution presented by President A. L. Brooke at the Omaha convention, but not acted upon:

WHEREAS, This convention of nurserymen of America has on different occasions in the past declared itself in no uncertain language in favor of a protective tariff, and

WHEREAS, We, by our means and the earnest work of our committee, appointed by this body, secured a fair and just law on the importation of nursery stock, therefore, be it

Resolved, That we do hereby most earnestly condemn any attempt to defraud our government of any duties on nursery stock laid under the present law, either by a false *ad valorem* price, or by short count. We condemn any attempt thus to defraud our government as not only unpatriotic, but unjust to members of this association who should come into competition with this class of trade.

Resolved, That we hereby instruct our committee on tariff to assist the custom house officers in detecting any attempt to pass any stock subject to duties by any importer or buyer of foreign stock, and in furtherance of this cause we deem it the duty of each and every member of this association to report any infringement of the law to the tariff committee for their action.

In Nursery Rows.

TRUE FROM SEED.—H. E. Van Deman says: "There are some varieties of the peach that come quite nearly true from seed; among these are Heath Cling, Hill Chili, Smock and Morris White. The very early kinds, such as Amsden and Alexander, come fairly well from seed, as I have proved in hundreds of cases on my grounds. It would seem to me that little nurseries of budded trees would be better to replant from, because more certain of the varieties. A large number of kinds to cover a long season of ripening in the South is not well secured in the kinds that come true from seed, most being very early and very late."

BLACKBERRIES.—"Nearly two years ago we stated in these columns that there were already set and growing enough blackberries to supply the markets for five years. Two harvests have occurred since that statement was made, and its truth is established by the market reports. Less than one-half of the present crop will be gathered. The vines in Southern Illinois are black with ungathered berries. There are those who will gather and ship at a loss, but their number is not great. For the next three years there ought to be no blackberry plants put out in the West with a view of growing the berries for market purposes."—*Fruit Growers' Journal*, Cobden, Ill.

BLACK KNOT.—S. D. Willard says: "Since I have been growing plums for a quarter century, I have never seen the time when we have been absolutely free from the black-knot. It is a singular fact that often there are seasons when very little is seen of it; then again a season comes when it appears in a more virulent form. This is entirely unexplainable to me, but the facts are the same, and so far as my observation and experience extend, are indisputable. I have not noticed it as being worse this year than last. My plan is to cut out every evidence of the knot that is discernible, promptly, following the strings from it down several inches, as it will be observed that it is traceable some distance below or above where the knot itself appears."

PROPAGATING CONIFERÆ.—Robert Williamson, Greenwich, Conn., says: "Of all ornamental trees and shrubs, possibly, there are none easier to propagate from cuttings than most varieties of coniferæ. What I find to be the best system of propagation is to insert cuttings (taken with a 'heel' of the wood) in sand any time from the end of October to the first of January. They can be placed in a cool house or pit, and by the end of March they will be found to be calloused, and with a slight increase of temperature they will soon throw out roots. They can then be potted into two and three-inch pots. Some time in May they can be planted in nursery rows, in good garden soil, outside, and transplanted every year afterward until they attain the proper size for the object in view."

BUTTNER'S YELLOW CHERRY—Answering a query by J. L. B., Plainville, N. J., in *Rural New Yorker*, H. E. Van Deman says: It would be impossible to tell why Buttner's Yellow cherry is not more largely grown. Perhaps very few have tried it and know of its character. If it does better with J. L. B. or any one else, than any other kind, then it is just the one to grow, at least at their places. There are many worthy fruits that are somehow overlooked or neglected without any just reason, only ignorance of their goodness. This

cherry may be one of that class. It originated in Germany, and has been grown by a few persons for many years past. Perhaps it would be well to send buds from this tree to some good nurseryman and have some trees propagated. This is just the time of year to do it.

NEWTOWN PIPPIN.—Conrad Hartsell, St. Joseph, Mo., says in *Western Fruit Grower*: "The Newtown Pippin is of eastern origin and has few, if any, superiors. It is not generally known in the western states, but, when its proper name becomes fully established and when it becomes known as the best winter apple, then its only name will be 'The Newtown Pippin.' The tree is very desirable, thrifty and long lived when tree grown. The Newtown Pippin, naturally, is a tree of long life when permitted to grow as a tree; but it can be made short lived the same as others, by the ordinary western mode of propagation and short lived pruning. The craze for roots and tops without a body will in time run its course, then will trees be common in the orchards instead of shrubs, as now seen. All-round nurserymen are beginning to advise a common sense change. Trees will be the result and then better fruit, especially when the red apple craze has passed and been forgotten and only good apples are in demand without regard to color or name."

RHODODENDRONS.—Over a large extent of territory rhododendrons will be successful if confined to a few hardy sorts, says S. B. Parsons. For their success a light loamy soil is the best. Leaf mold, rotten sod or surface soil which has been heavily manured the year before are all beneficial. Mulching is useful, but it should not be allowed to remain during the growing season, from April 15 to July 15. The soil needs air and sun for at least three months of the year. Some liquid or surface manure can be profitably applied during the growth. Rhododendrons will not flourish in a limestone or clay soil. Rhododendrons are heavy feeders, and should not be planted too closely. They need abundant room for their roots when properly supplied with liquid or rotten surface manure. The coarser will also cripple the finer varieties. When thus crowded they should be transplanted to more space. It is also a great mistake to plant under trees; the leaves will be of a darker green, but the bushes will not flower as freely as when planted in the sun.

APPLE EXPORTS.

The season's apple exports from August 7, '97, to June 11, '98 were 913,996 bbls. from the United States and Canada, according to the annual summary of Mahlon Terhune, the New York fruit broker. This is only a third of the business of the previous season, when 2,919,846 bbls. were exported, but constitutes a fair average for recent years. Of the sum first named, Liverpool received the greatest proportion, 490,000 bbls., followed by London 198,000 bbls., Glasgow 124,000 bbls., Hamburg 89,000 bbls. Of the ports of export, New York led with 362,000 bbls. against 570,000 bbls. the previous season; Boston cleared only 176,000 compared with over 1,000,000 bbls. a year earlier.

JAMES MCCOLGAN & CO., ATLANTIC HIGHLANDS, N. J., May 31.—"Enclosed find \$1 to renew our subscription to the NATIONAL NURSERYMAN. We cannot afford to do without it."

Foreign Notes.

A bulletin has been issued by F. V. Theobald on "The San Jose scale and its probable introduction into England," with electros supplied by the United States Department of Agriculture.

At the Paris exposition of 1900 ample space will be allotted to horticulture. There are to be 18 groups comprising 120 classes in the entire exhibition. Group VIII, classes 43—48, includes horticulture and arboriculture. Great preparations are being made. Horticultural products will be exhibited on the north side of the Seine, near the Place de l'Alma.

The province of Cagliari, which contains the richest and most extensive wine regions of the island Sardinia, has remained free from the invasion of the phylloxera, but, nevertheless, the wine growers and proprietors of vineyards are still menaced by this dreadful calamity; and, in order to keep off the pest the director of the School of Viticulture has commenced to recommend most warmly the introduction and cultivation in Sardinia of American vines.

At the recent Royal Horticultural Show Thomas Rivers & Son exhibited a new late peach named after the senior member of the firm, and Paul & Son a new hybrid tea rose, the Una, a cross between Rosa canina and Gloire de Dijon. The last named firm exhibited a new China rose, Queen Mab, at the British National Rose Society's exhibition on July 2d. B. R. Cant, Colchester, won the championship trophy in the contest between six of the leading rose-growing nurserymen.

FLORISTS' CONVENTION.

The fourteenth annual meeting of the Society of American Florists and Ornamental Horticulturists will be held at the First Congregational church, Omaha, August 16—19. The president will hold a reception in the church parlors on the evening of the first day. There is to be a trade exhibition, a special medal competition, exhibition of photographs, bowling contest and the establishment of five new departments designated as follows: Credit information, co-operative purchase, legislation, arbitration and claims.

FLORISTS DISAPPOINTED TOO.

Notwithstanding the statements to the contrary, thus far no rate has been made to the Society of American Florists, by the railroads from Chicago, St. Louis, St. Paul, nor from points like Buffalo and Pittsburgh west to Chicago, any better than the ordinary one-man thirty-day rate allowed to anybody and everybody. This is manifestly unjust to an association like the S. A. F., with an average attendance of over 600 for the past ten years.

Professor Taylor at the Providence convention certainly made broad promises of liberal rates on account of the Trans-Mississippi Exposition, and instead of realizing on them we are confronted with the highest fares ever known in connection with the annual meeting. The present Chicago-Omaha round trip being \$20, it will be impossible to muster anything like a representative gathering to push this pioneer work in the West. —*American Florist.*

AMERICAN PARK ASSOCIATION.

The American Park and Outdoor Art Association, was the designation in the constitution adopted at the Minneapolis meeting of the association. The following officers were elected: President, C. M. Loring, Minneapolis; secretary, Warren H. Manning, Boston; treasurer, E. B. Haskell, Boston; vice-presidents, P. H. A. Balsley, Detroit; W. H. Olmsted, Boston; G. H. Warder, Cincinnati; E. J. Parker, Quincy, Ill.; Lewis Johnson, New Orleans; M. L. Moore, Toledo. The association will meet next in Detroit.

SNEED, TRIUMPH AND GREENSBORO.

J. Van Lindley, Pomona, N. C., sends the following as his experience this season with the three peaches named:

The Sneed commences ripening first and is a fine quality peach, ripening on the tree to perfection and is generally well colored with bright crimson. It is most valuable for home orchards and local markets, and is all right for markets which can be reached morning after being gathered, but too tender for distant markets and long hauls. It commences to ripen about ten days ahead of the old Alexander and is about through before that variety commences, so there is nothing in its way. Its main place is in the family and local market orchard where it is bound to continue to stand high, and for home use it is better than the Alexander ever was.

The Greensboro ripened immediately following Sneed and with Alexander is larger than that variety and far superior in every way except color. However its bright delicate crimson next the sun makes it show up beautifully on trees and in baskets and it sold well on New York market this season. It is a semi-cling, will part from the seed when overripe. On account of its large size and quality it has come to stay and completely takes the place of Alexander. While not altogether as good a carrier as some of the later varieties, yet, as stated above, it did well on the markets this season. As a family and local market peach, it will never be excelled as it will please the taste of the most fastidious.

The Triumph commences about a week later than the Greensboro, coming on when that variety and Alexander are two-thirds gone. It is of good size, averaging considerably larger than Alexander; is of high color and most excellent quality. It ripens well to the seed and is a semi-cling, full ripe ones will part clean from the seed. It being a yellow peach ripening when it does and extremely hardy in every respect, makes it a most valuable market peach for distant markets, coming in at a season when we needed just such a peach and fills up a little gap that is very important to commercial fruit growers.

My test with the above varieties was with 2,000 trees each, one and two years old in orchard or two and three years old from bud which I think is a very fair test.

Altogether these three varieties, though comparatively new, give us fruit of good qualities for a full month without a break where heretofore we only had the Alexander and its class of inferior quality for about ten days.

Obituary.

George W. Campbell, of Delaware, O., died July 15, aged 82 years. He was one of the best known horticulturists of this country. He was born in Cortlandville, N. Y., January 12, 1817. More than three score years he devoted his efforts to horticulture. He had been a continuous member of the American Pomological Society since 1850. He had been president of the Ohio Horticultural Society and was a member of the American Association of Nurserymen. President Hayes appointed him United States Commissioner to the Paris Exposition of 1878 and he attended other universal expositions in an official capacity. He sent out the Delaware grape and a few years ago originated the Campbell's Early grape. His death is a severe loss to American horticultural interests.

FRUIT IN MONTANA.

*Trees and Shrubs Which Thrive There—Those Which Do Not—
A Productive Soil—Growth of Commercial Orchard Demands
in Mountain States—Large Field Open to Nurserymen.*

S. M. Emery, Bozeman, Mont., introducing his subject "Fruit Prospects in Montana" at the Omaha convention said:

"Though seven years have elapsed since I met with you it seems but yesterday. I fully appreciate the pleasure of this meeting. Now you talk about coming to the West when you come to Omaha. Why bless your souls, you just entered the western territory when you crossed the Missouri river. Montana is half way between the Pacific coast and the great lakes. We consider Omaha as the effete East. Montana is half way between the Pacific and the great lakes and I beg of you not to encourage the feeling that you are in the West."

Taking up the subject proper, Professor Emery said: "Montana lies along the backbone and ribs of the main range of the Rockies, and as the epicure finds the choicest, tenderest cuts of the animal along either side of the backbone, so do we catch the richest soils of this continent along the valleys which are the natural water-courses draining these sources of perennial moisture.

"The geologists and soil experts give us a scientific dissertation upon the formation of this country, in which they say: 'There is seldom a difference between the soil and subsoil, as there is under the more humid climate of the East. The soils generally are silty in character and contain relatively little very fine material having the properties of clay. The relation of some of these soils to water and crops is very remarkable. They absorb moisture so readily, lose it through evaporation so slowly, and yet supply the needs of plants so regularly and abundantly, that they can stand long periods of drought, during which the crops continue to grow without any signs of suffering for lack of water. The farmer in these favored sections is as familiar with the fact that certain soils will withstand drought of six months' duration as our eastern farmer is that his crops require rain at intervals of a week or ten days.

"Chemical analysis shows a double content of the three great essentials, nitrogen, potash and phosphoric acid, and doubtless when the great original mud-pie of the Montana regions was manufactured, double handful of these potent seasoners were stirred in, in place of the usual quantity. We are not dependent solely upon the scientific labors of the chemist for this knowledge. Each plant that grows in this matchless soil gives eloquent testimony to the character of the food it receives. Frequently wheat, barley and oats yielding 60, 75 and 125 bushels respectively, give satisfying proof of soil fertility. Potatoes have turned out at the rate of 1,200 bushels per acre, and alfalfa, the king of all crops, frequently gives seven tons per annum.

"Of wild fruits, there are strawberries, the size of walnuts, huckleberries that cannot be passed through a medium sized finger ring, gooseberries, raspberries, service berries, elder berries, currants, buffalo berries and plums, and the general quality and superabundance of the wild fruits is the most serious bar to the introduction of domestic varieties.

"Since 1867 a few enthusiastic Johnny apple seeds have been planting trial orchards. Early shipments of trees came by mule train or pack saddles, by freight teams, by steamboat

and under conditions that would seemingly deter the most enthusiastic amateur from attempting to secure stock. They were experimenting with the same apples that were set in Minnesota and Wisconsin 31 years ago, with the difference that whereas in the latter states one must hunt up the original order sheets to remember what was purported to have been purchased, all other evidence of the transaction having been obliterated in Montana, many of these old pioneers are standing, vigorous and thrifty producers of full crops of splendid fruit. Delaware Red, McIntosh Red, Alexander, Wealthy and Duchess apples, Peach, Bradshaw, Lombard, Yellow Egg, Pond's Seedling plums, Bartlett pear, Clapp's Flemish Beauty pears, Early Richmond, Windsor, Bigarreau, Montmorency cherries are leading varieties for Montana."

Professor Emery gave the result of tests with shrubs. Of five varieties of lilac, white althea, flowering currant, sumach, snowball, two Tartarian honeysuckle, alder and golden alder, all were dead; of three varieties of spireas, Japan quince, Kerria japonica, one-third were dead; of two varieties barberry, tamarix, flowering plum, ilex, mahonia, two-thirds were dead. Of the trees that kill were named the Norway maple, soft maple, mountain ash, purple beech, purple maple, golden elm. Of the trees which live are the horse chestnut, European linden, purple maple, cut-leaf birch, white ash, Kilmarnock willow.

"I have been amazed," said he "that intelligent progressive men, as many of you are known to be, should have overlooked the mountain states and have been content to fill orders calling for single dozens when good men are planting a hundredfold as many in single orchards in the mountain states. Single orchards run from 500 acres and downward. The last census of the United States showed a per capita wealth of \$3.249 in Montana."

AN ENTERPRISING FIRM.

In spite of the "hard times" cry, almost universal among nurserymen, unmistakable evidence of prosperity may be seen at the establishment of Jackson & Perkins Co., Newark, New York. This enterprising house is this summer adding to their already complete plant another large storage cellar one hundred feet long by sixty feet wide, a large packing shed and three additional greenhouses each ninety feet long by fourteen feet wide.

The cellar is one of the best constructed buildings of its kind and for its purpose to be found anywhere and will undoubtedly prove of the greatest advantage and convenience and it, together with the cellars previously built, will give Jackson & Perkins Co. storage room to the extent of nearly 300,000 cubic feet.

The erection of the three new greenhouses was made necessary by the marvelously increased trade of this firm upon own root roses. This line has always been a leading specialty with them and of late years they have found it quite impossible to fill anywhere near the demands of their trade. With the addition of these new greenhouses, they expect to propagate a plump one-half million of roses a year, besides almost an equal quantity of clematis and other plants.

PLEASED WITH IT.

ELMER SHERWOOD, ODESSA, N. Y., JUNE 30, 1898.—"Enclosed find \$1.00 for a year's subscription to the NATIONAL NURSERYMAN, which I consider the brightest trade journal in existence."

Among Growers and Dealers.

For fruit plates call on Vredenburg & Co., Rochester, N. Y.

Benjamin Chase, Derry, N. H., is busy filling orders for labels.

Eugene Willett, North Collins, N. Y., makes a specialty of small fruits.

D. S. Lake, Shenandoah, Ia., made a two weeks trip in the South last month.

Samuel Whitton, Utica, N. Y., commission merchant, handles all kinds of fruits.

J. H. Campbell wishes to purchase a western nursery or a controlling interest.

Stephen Hoyt's Sons, New Canaan, Conn., offer 100,000 two-year apple seedlings.

A. H. Griesa, Lawrence, Kan., is the originator of a new raspberry called the Cardinal.

An attractive list of specialties is presented in another column by A. Willis, Ottawa, Kan.

The Dayton Fruit Tree Label Co., Dayton, O., has everything in the line of wood labels.

Ex-President Irving Rouse of the American Association is at Gananoque, Thousand Islands.

P. F. Williams of the Chicago office of Brown Brothers Co., was in Rochester early last month.

Kilmarnock willows, standard and dwarf pears are specialties with D. H. Patty, Geneva, N. Y.

C. L. Longsdorf, Floradale, Pa., has a surplus of apricot, peach, plum, shade trees and evergreens.

An attractive list for the coming fall and spring is presented in another column by Thomas W. Bowman.

It is reported that John D. Busch has purchased the stock of the Elgin Nurseries, Elgin, Ill., for \$6,000.

Strawberry plants for August and September planting can be obtained of W. N. Scarff, New Carlisle, O.

Jacob W. Manning, Reading, Mass., sends wholesale lists of hardy plants and rare shrubs, upon application.

The Dayton Star Nurseries, Dayton, O., are making a specialty of apple and cherry and ornamental trees.

Peach trees by the 1,000 or carload are offered by D. Baird & Son, Baird, N. J. Also buds of peach and Japan plum.

Herbaceous plants in special assortment are offered by T. R. Watson, Plymouth, Mass. He has fifty named varieties.

The Phoenix Nursery Co., Bloomington, Ill., have 600 acres and 13 greenhouses containing a full line of nursery and floral stock.

Charles Buttrick and W. J. Watterson, Cascade, Mich., have dissolved partnership. Charles Buttrick continues the business.

Bragg's Common Sense tree digger is shipped on trial by L. G. Bragg & Co., Kalamazoo, Mich. They have fruit tree buds also.

The Rossney pear may be obtained from Pioneer Nurseries Co., Salt Lake City, Utah, or the Phoenix Nursery Co., Bloomington, Ill.

One of the oldest nurseries in Ohio is that of Samuel Kinsey & Co., at Kinsey. They have a full line of general nursery stock.

Large trees for immediate effect can be obtained of M. F. Tiger, Patchogue, N. Y. Also California privet and other ornamental stock.

George S. Conover, at one time in the nursery business in Geneva, N. Y., died July 5, aged 74 years. He was prominent as a historian.

M. W. Harman, for several years manager for S. D. Willard, Geneva, N. Y., has started in business under the firm name of the M. W. Harman Co.

J. G. Harrison & Sons, Berlin, Md., would like to price nurserymen peach trees and plum trees and buds of each. They have a large stock.

There is a surplus of peach, plum, currants, poplars, privet, shrubbery, evergreens, roses and shade trees, at the F. & F. Nurseries, Springfield, N. J.

George Achelis, West Chester, Pa., has a full line of ornamental stock and calls special attention to peach and apple trees, Norway maples, Yuccas and arbor vitae.

The American Orchard Company at St. Louis has been incorporated with \$100,000 capital. L. W. Day holds 998 shares and J. E. Hereford and J. W. Darst one share each.

The resignation of Professor J. L. Budd of his position as head of the horticultural department of the Iowa Agricultural College, at Ames, Ia., has been accepted by the trustees.

A. W. Kerr, Sherman, Texas, has sold his property to H. O. Hannah, of that place and has purchased land at Houston, Texas, where he will conduct the nursery and florist business.

Hoopes, Brother & Thomas, West Chester, Pa., with 600 acres, established 45 years ago, have an unusually fine stock of ornamental and fruit trees and shrubs. They make carload lots a specialty.

John Charlton & Sons, Rochester, N. Y., offer 60,000 peach trees free from curl and yellows, Campbell's Early and other grapes, Iceberg blackberries, Bismarck apples and a full line of ornamentals.

The best early peach we have seen is the Champion, jr., originated by I. G. Hubbard, Nokomis, Ill. It ripens about July 15th and is superior to Alexander or Amsden. Its season just precedes that of the Champion, of which the Junior is a seedling.

Crimson Rambler roses in the famous nursery of Ellwanger & Barry, Rochester, N. Y., are attracting much attention. Trellises have been covered with the blossoms in a charming manner. Viewing these specimens, one appreciates the great value of this climber, high praise of which has been well merited.

A million peach trees grown on the shore of Lake Erie two miles from any peach orchards and guaranteed free from scale, borers, yellows, etc., are offered by the Storrs & Harrison Co., Painesville, O.; also low budded roses. This company has 32 greenhouses filled with roses, palms, araucarias, ficus, etc. A thousand acres are in nursery stock. The company has been doing business 45 years.

L. T. SANDERS.

The subject of this sketch was born in Bertie County, N. C., May 15, 1845, and is of English and Scotch descent. He moved with his parents to St. Francis County, Ark., (afterward Woodruff Co.) in the winter of '49. His father being a farmer, he was brought up that way. As the country was new, his education was limited. The civil war coming on while he was in his 'teens, he enlisted for one month, and re-enlisted before he was 17 years old, and served until the close of the war west of the Mississippi river, being discharged near Marshal, Tex., in May 1865. On returning home he found his father had died and the country being overrun by both armies, was about ruined. He set about to help build up the waste places. He attended school a part of the year, and then again went to the farm. In the fall of 1867 he went to Southwest Arkansas, and in 1868 located in Bossier Parish, La., where he has resided continuously since.

Mr. Sanders married Miss Frances A. Walker in January, 1869. He followed general farming until about 1880, when he added the fruit and nursery business, and is making a success of both. Mr. Sanders is a member of the American Association of Nurserymen and the Texas Horticultural Society, and was a member of the American Horticultural Association. He is the vice-president of the American Association of Nurserymen from Louisiana. He has recently associated with him in his business his son, Leon Sanders. Mr. Sanders has introduced several valuable new fruits, viz., Frances and Eureka peaches, Biery plum, and Yellow Forest and Louisiana apples.

AN OREGON OPINION.

The nursery business appears to be badly demoralized all over the United States. The business boomed too vigorously a few years ago and with a great over-production of trees the price was forced down to figures at which it is impossible to put out good trees and make anything. In Oregon the business is now rapidly readjusting itself. Many nurseries have gone out of the business and others have consolidated. The greater part of the trees produced in Oregon nurseries are sold, however, in competition with eastern trees and the low prices have prevented even our most enterprising nurserymen from doing more than keep themselves from losing money even while doing a large business.

Eastern nurserymen are, however, cutting down very largely their plantings and an advance in the price of trees is inevitable before long. This will be no real detriment to the fruit-growing industry. A great number of people have bought fruit trees simply because they could get them for almost nothing who would now be better off if the trees were dug up and destroyed. Deterioration in quality is also an inevitable result

of an excessive cheapness. Better prices and better trees will be no less beneficial to the fruit-growing industry than to the nurserymen — *Oregon Agriculturist*.

ADVOCATES A PARK NURSERY.

At the Minneapolis meeting of the American Park and Outdoor Art Association, Fred Kanst, landscape gardener for the South park system, Chicago, read a paper in which he said:

"In the majority of parks, and especially small ones, it is usual to obtain plants by collection from the surrounding country, or by purchase from nurseries. In larger parks, where thousands of plants are required, it is very essential in order to obtain the best results, as well as for economical reasons, that a park nursery be established where such trees as the elm, oak, ash, linden, negundo, birch, maple, etc., may be kept growing in a healthy condition until such time as they may be needed. These trees when young can be purchased from nurseries very reasonably and when in nursery rows they can be had at any time they are wanted, thus saving delay, as the seasons of planting are usually short. Another advantage is that the trees will have become acclimated. But the principal object of a park nursery is to furnish quickly and in large quantities such varieties of trees, shrubs and plants as will be mostly used in the plantations, such as spiræas, cornus, ligustrums, philadelphus, ribes, symphoracarpus, lonicera, poplars and willows. These and many others may be readily increased from cuttings obtained from plants already about the park, by collection or by purchase.

"The raising of their own plants has been practiced by the South Park commissioners for years past, and over 400,000 trees and shrubs, all grown in this way, are now in different parts of the park and all in fine condition. There are also

150,000 cuttings, which were made last winter, growing in the nursery at the present time, which will be ready for next spring's planting."

There will be presented to congress a bill to encourage the holding of a National Exposition of American products and manufactures, at Philadelphia in 1899.

The Wabash and the Rock Island railroads are doing a very large share of the traffic east and west this summer. Their special train equipment is popular.

Edward E. Uslar and Henry Ruehl of the California Nursery Co., Niles, Cal., visited eastern nurserymen last month. Mr. Uslar went from Rochester with William E. Rossney to Bloomington, Ill., to enter the nursery business and eventually pushed on to the Pacific coast. His company is doing a large business in deciduous trees and shrubs; it ships heavily to Australia and the Hawaiian Islands.



L. T. SANDERS.

The National Nurseryman.

C. L. YATES, Proprietor.

RALPH T. OLCOTT, Editor.

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Payment in advance required for foreign advertisements.

☞ Drafts on New York or postal orders, instead of checks, are requested.

Correspondence from all points and articles of interest to nurserymen and horticulturists are cordially solicited.

AMERICAN ASSOCIATION OF NURSEYMEN.

President, A. L. Brooke, N. Topeka, Kan.; vice-president, E. Albertson, Bridgeport, Ind.; secretary, George C. Seager, Rochester, N. Y.; treasurer, C. L. Yates, Rochester, N. Y.

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Committee on Tariff—Irving Rouse, Rochester, N. Y.; J. J. Harrison, Painesville, O.; N. W. Hale, Knoxville, Tenn.

Annual convention for 1899—At Chicago, Ill., June 7, 8.

Entered in the Post Office at Rochester, as second-class matter.

ROCHESTER, N. Y., AUGUST, 1898.

THE TIDE HAS TURNED.

While in the opinion of many in the trade, business is little if any better than it has been for some time, there are unmistakable signs of an upward tendency of prices and a disposition to do business on old lines adapted to new conditions. At the Omaha convention an increase in prices was discussed and there was practical unanimity of opinion that the tide had turned, that prices would advance and indeed had advanced. On certain stock the increase was asked. At a meeting of nurserymen of Central and Western New York last month it was decided to act in unison with western nurserymen in restoring the prices at least partially. Such action is for mutual advantage. It is also to the benefit of the orchardist for at fair prices nursery stock is not expensive and at such prices the nurserymen can afford to exert every endeavor to produce the highest class of stock. The entire business is placed upon a more substantial and reliable basis and the purchaser of nursery stock feels the assurance that he is getting full value.

Aside from the general improvement in business conditions throughout the country, there has been a cleaning up of some lines of nursery stock and naturally prices on such stock should become firmer.

BUD SELECTION.

The article in this issue by G. H. Powell on the improvement of varieties is timely. Since the NATIONAL NURSERYMAN called attention to Professor Bailey's terse statement that the introduction of new types of fruits, while important, is less so than the improvement of types already introduced, several horticultural journals have endorsed the opinion.

There is food for much thought in Mr. Powell's statement that horticulturists have never made a systematic attempt to improve a variety after it once appears, or even to maintain its standard of excellence, for improvement has ever been looked for through new varieties. "It seems strange," says Mr. Powell, "that the slight differences which appear in the buds of a tree should not have formed the basis for the systematic improvement of orchard varieties."

A number of nurserymen have adopted the practice suggested by Professor Bailey, who says: "It would certainly be a good and safe stroke of business for a nurseryman to select his scions, so far as possible, from trees of known excellence and prolificacy and to let the fact be known."

THE BUG-BEAR OF 1898.

The bug-bear of 1898 has almost disappeared. Notwithstanding the dire threatenings, the press despatches from day to day fail utterly to record the devastation of orchards by the San Jose scale. We have watched the daily and weekly exchanges from every city in this country and Canada and from many of the towns. Not a single case has come to light, Canada, Austria, France and Germany have taken action on the scale subject, but the nursery business goes right on. Orchards will be planted under guaranty of clean stock and the principle of self-preservation will prevent the spread of pests.

Congress has adjourned and the federal scale bill was not passed. It may come up at the next session, but by that time events may prove that it is not necessary or that it should be amended. It was advocated by the nurserymen because it would provide a uniform law for all states. The sixteen state laws at present contain provisions so varied as seriously to interfere with the transaction of the nursery business.

"In the July issue of the *Forum*, Chief Entomologist L. O. Howard of the United States Department of Agriculture, reviews briefly the San Jose scale history under the title "International Relations Disturbed by an Insect." He says that the German government was the first to gain exact information on the subject, because for some years that government has had a scientific man of ability attached to its embassy at Washington, for the sole purpose of studying American agriculture. Dr. Howard thinks this should suggest to the United States government a similar policy. In conclusion Dr. Howard says:

"It is plain that foreign nations are just beginning to do what we ourselves might long ago have done with advantage. The majority of our principal insect pests are of foreign origin,

and many of them might have been prevented from entering our ports, had there been at least a national system of quarantine and inspection such as is now carried on successfully by the State of California at the port of San Francisco."

We agree fully with Dr. Howard on this subject. Keep the insect pests out of this country and reduce the labor of the nurseryman who is obliged as a matter of business policy to use every precaution to keep his stock free from anything which would make it unsalable.

There is much of truth and wholesome advice in the communication of Frederick W. Kelsey of New York in the July issue of the NATIONAL NURSERYMAN. "Every effort to improve existing conditions by artificial barriers to the natural laws of trade is inevitably disappointing and doomed to eventual failure," he says. "The reaction is worse than the action. The ink is yet fresh on the various scale laws of the different states, when it is found that the intended remedy is worse than the disease, that kind nature and self-interest are the best preventives against insect pest encroachment."

THE BUSINESS SITUATION.

In the May issue of the NATIONAL NURSERYMAN reports from all quarters indicated a marked improvement in the condition of the nursery business and particularly in the middle and western states. In the June issue ex-President J. H. Hale of the American Association expressed surprise that there should be such unanimity of expression on the improved conditions and stated what he believed to be the facts. He cited some undesirable features in the conduct of the nursery business as tending to demoralize it, especially the sending of wholesale lists to retail buyers. While upon all sides such practices are deprecated, there is not a single open advocacy of them and it is therefore generally admitted that they are against the interests of the trade.

But while there is this internal difficulty to meet, there are and have been changes in external conditions which have a most important bearing upon the trade situation. These changes were noted in our May reports and upon them was based the assertion that the nursery business was improving. When there is a combination of wholesale lists to retail buyers and lack of money among those buyers, certainly the removal of either or both of these barriers to successful business should result in an improvement. It was stated by our correspondents that the farmers, realizing well on their crops, had money for nursery stock; that sales had increased from 25 to 50 per cent., and that collections were much easier. Especially was this the case in the West where sales and collections had previously been slow.

Fully corroborating our reports are those of the *American Agriculturist* for the week ended July 23d. That journal says:

We have obtained reports from a majority of the leading firms in all branches of the agricultural trade, particularly in the western and middle states. Most of these returns go into considerable detail, and give a very full insight into the real state of farmers' finances. These letters were in most cases written to us in confidence, and we are therefore able to print only a few of them. Altogether these reports make a most remarkable exhibit. They show that trade with the farmers has increased this year from 10 to 300 per cent. over the corresponding seven months of last year. Only in one or two cases is business reported as less than last year, and these were for special causes. The universal report is more business. In a few cases, manufacturers of

popular specialties for farmers are making three and four times as many sales as in recent years.

We regard as even more important evidence the increases of 25 to 50 per cent. in sales reported by many of the largest manufacturers of staple implements and agricultural supplies. These concerns do such a large volume of business, some of them covering the whole United States and Canada, that their general unanimity in reporting an increase of trade is proof conclusive of the accuracy of all other evidences of larger purchasing power among farmers.

All returns agree that collections are easier among the farmers than for years.

The prospects for agricultural trade are believed to be the best in years. No exceptions to this opinion are expressed in the more than 500 returns at hand. Many concerns were forced to run their factories overtime the past winter and spring, and even then some could not keep up with their orders. In several cases, goods for next spring's trade, which usually are not manufactured until winter, are now being made up during the otherwise usually dull period in such factories. This confidence in the future is expressed by all branches of agricultural trade—implements, vehicles, dairy and poultry goods, fencing, etc. It is strongest in the middle and western states, but appears to be growing in the South and in New England.

The restoration of more satisfactory conditions outside of the trade should be encouragement to all to adopt only such methods as are sanctioned by sound business practice.

WHAT IS A FIRST CLASS TREE.

"We conceive a first class nursery tree," says Professor Bailey, "to be one which grows straight and smooth, tall and stocky, while we know that very many, perhaps half, the varieties of apples and pears and plums will not grow that way. In order to make our conception true we grow those varieties which will satisfy the definition, and, as a result, there is a constant tendency to eliminate from our lists some of the best and most profitable varieties. All this could be remedied if people were to be taught that varieties of fruit trees may be just as different and distinct in habit of growth as they are in kind of fruit, and that a first class tree is a well-grown specimen which has the characteristics of the variety. Why may not a catalogue explain that a tree may be first class and yet be crooked and gnarly? Why not place the emphasis upon health and vigor, and not upon mere shape and comeliness? And why may not a nurseryman give a list of those varieties which are comely growers and another list of those which are wayward growers?"

The use of photo-engravings in nursery catalogues which is becoming more widespread each year, gives a more accurate view of the stock offered, and it is quite probable that in the near future the tendency, already marked, to let nature have its course to a great degree in the growth of ornamental trees will extend to fruit trees; always with due regard, of course, to the value of the pruning knife for the production of fruit.

The education of the grower that he may select the varieties which are best for his purposes and conditions is the first step in the improvement of fruit growing generally. Professor Bailey suggests that this education should at least be fostered by the nurseryman inasmuch as his ultimate success is determined by the profitableness of fruit growing.

M. J. HENRY, VANCOUVER, B. C., June 2.—"I enclose one dollar in payment of my subscription to NATIONAL NURSERYMAN another year. A good publication, growing better every year, and it is a pleasure to receive and read it."

Recent Publications.

Acting State Entomologist E. P. Felt, of Albany, has prepared a New York State Museum bulletin on the elm-leaf beetle in New York State.

The official proceedings of the Omaha convention of the American Association of Nurserymen have been issued by Secretary Seager. The nurserymen's telegraphic code is included.

Octave Doin, Paris, France, has published in pamphlet form three papers by prominent authors read at the last meeting of the French Society of Chrysanthemum Growers, on the diseases and parasites, the fructification and the fertilizers and composts for chrysanthemums. They are timely papers on these subjects.

In garden dictionaries and some other works may be found brief descriptions of plants, but separate treatises upon a certain variety are not common. The well-known horticultural editor and publisher, Octave Doin, of Paris, is furnishing a valuable collection of such treatises in his "Library of Horticulture and Gardening." We have referred to several of these works, each written by a recognized expert on the subject discussed. Three more of the little volumes have come to hand. One of these devotes 114 pages to culture of Clematis and the remainder of the book to Honeysuckles, Trumpet and Passion flowers and other climbers. In another volume Jules Rudolph writes on the Caladium, Anthurium, Alocasia, etc. The third volume is entitled "Practical Essays on the Chemistry of Horticulture." This is of general interest. Its importance is indicated by the subjects discussed, viz; Physical and chemical properties of the soil, the water, fertilizers, lime, chalk, sulphur, plaster etc. Each 2 fcs. Paris, 8 Place de l'Odeon: OCTAVE DOIN.

The third volume of the very valuable work by Dr. N. L. Britton and Hon. Addison Brown, entitled "An Illustrated Flora of the Northern United States, Canada and the British Possessions," has been issued by the publishers, Charles Scribner's Sons, New York. The praise which the first two volumes received has been fully warranted as shown by the completion of the work. For comprehensiveness, clearness, accuracy and excellence of typographical appearance it is unsurpassed. The descriptions are uniformly clear and practical and the illustrations present in the least possible space all the features of a variety needed to identify it. The number of species figured in the whole work is 4,162, comprising 177 families and 1,103 genera. Eighty-one of these species, mostly western, being new determinations or new discoveries, made while the work was in progress and too late for insertion in their proper places are figured in the appendix. These being all well established species within the area defined, up to January, 1898, it will be seen that the work is fully up to date and thoroughly covers the field. Dr. Britton has prepared a key of the orders and families. A glossary of the special botanical terms used has been provided, followed by a complete general index of all the Latin names, including synonyms. The use of the natural method upon which the key is elaborated has necessitated a considerable number of exceptions to statements owing to the varying degree of development of floral organs in the derivation of plants from their ancestors; these exceptions are noted either under the headings or by cross references. Judge Brown has compiled a list of all the popular English names. It embraces all our plant names commonly used by pharmacists, horticulturists and plant collectors, or likely to be met with in botanical or current literature. No similar compilation of American plant-names has hitherto been published. Many of them are not to be found in any general dictionary. To the mass of the people this index is practically indispensable for the identification of plants. The entire work continually impresses the reader by reason of the great amount of original work, the extreme care with which it has been compiled and the evidence that it is thoroughly up to date. Space does not permit even reference to all the excellent features. The three volumes issued in 1896, 1897 and 1898 contain 1,843 pages and over 4,000 illustrations. The work is in the front rank of those publications which will remain as monuments to the wonderful progress of botanical research and scientific accuracy. Cloth. Royal 8 vo. \$3 per vol. New York: CHARLES SCRIBNER'S SONS.

A BUNCH OF "NOVELTIES."

A Michigan newspaper gravely states that a certain orchardist has been experimenting to find a new way to grow potatoes, and this spring grafted a poplar tree with potato peelings. He now (late April) has a fine crop of new potatoes, already the size of small goose eggs, and the tree promises to yield about $3\frac{1}{2}$ bushels. The orchardist expects to graft all his trees in this manner, asserting that this way of raising potatoes will do away with the potato bug.

A New York newspaper has given the following directions for growing seedless grapes: "Bend the cane to the ground, and cover say ten inches of its length with soil to a depth of a few inches. Fasten it in this position. The cane will make root at the bend and that portion growing beyond will produce seedless grapes."

A western paper says: "Cherries without stones have been produced in France by the following method: In the spring, before the circulation of the sap, a young seedling cherry tree is split from the upper extremity down to the fork of its roots; then, by means of a piece of wood in the form of a spatula, the pith is carefully removed from the tree in such a manner as to avoid any excoriation, or other injury; a knife is used only for commencing the split. Afterwards the two sections are brought together and tied with woolen, care being taken to close hermetically with clay the whole length of the cleft. The sap soon reunites the separated portions of the tree, and two years afterwards cherries are produced of the usual appearance, but instead of stones there will only be small soft pellicles."

From Anywhere **East**

To Everywhere **West**

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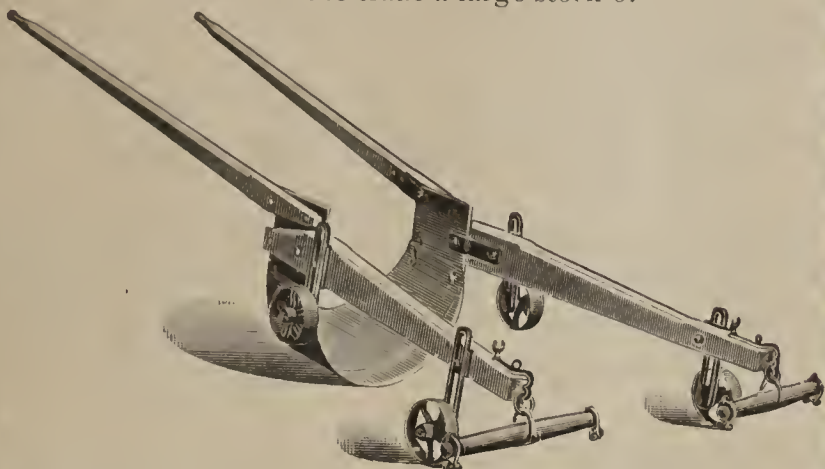
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Offer to the trade a large stock of



Apples, 3 year buds, Pears, Plums
and Cherries, 2 year buds.

Peach Trees, a fine stock; old and new sorts all in large quantities. Car load lots a specialty.
Bragg's Common Sense Tree Digger still at the front, which we ship on trial.

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Fruit Trees,
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Roses, Etc.

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Willis Nurseries

AT OTTAWA, KAN.,

offer a general assortment of

Choice Nursery Stock to the Trade
for the Fall of 1898.

We wish also to call attention to a fine lot of Baltimore Belle and Queen of Prairie Roses, and to a fine lot of Downing and Houghton Gooseberries, also to a fine lot of Concord Grape Vines, Early Harvest Blackberry plants and also to a choice lot of Clematis Jackmanii. We have the best facilities for handling stock, and give all orders our most careful attention. We will make our best prices to the trade, and in all of the above stock.

Send us your list before ordering elsewhere, we can save you money. Soliciting your correspondence.

A. WILLIS, OTTAWA, KANSAS.

Peach Trees

Apple Trees

A full line of fruit and ornamental trees. A special fine lot of *Norway Maples* at reasonable prices. Also a good stock of *Helenium superbum*, *Yuccas*, ornamental grasses, *Osage* 1 and 2 yr. old. A large stock of *Am. Arbor Vitae*s of different sizes and other *Evergreens*.

George Achelis,
WEST CHESTER, Chester Co., PA.

When writing to Advertisers mention The Nurseryman.



THE DIKEMAN CHERRY.

S. D. WILLARD, - - - - - GENEVA, N. Y.

The National Nurseryman.

FOR GROWERS AND DEALERS IN NURSERY STOCK.

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VOL. VI.

ROCHESTER, N. Y., SEPTEMBER, 1898.

NO. 8.

SOUTH DAKOTA FRUIT.

Problems Confronting the Grower—Brookings Orchardist Details Experiences With Nurserymen—Wind, Frost, Rabbits and Drought—Success in Spite of Many Obstacles—Reflections upon the Methods of Some Nurserymen.

At a recent meeting of the Minnesota State Horticultural Society, W. S. Thornber, Brookings, S. D., discussing "Problems Confronting the South Dakota Fruit Grower" said :

It would be impossible to enumerate in one brief paper all the problems that are confronting the South Dakota fruit grower, so I shall try and confine myself more particularly to the prominent ones. Many will verify the fact that South Dakota is not a "Garden of Eden" and, in all probabilities, if the prevailing environments continue will never be one.

Less than fifteen years ago the greater portion of our state was a vast, treeless plain, with not so much as a native willow to check those fierce and merciless winds which traversed all parts of the state. Very few native groves appeared along the streams, while the prairies were broad and expansive on either side. This was the time, while hundreds of dollars were being expended every spring and fall for unsuitable and worthless nursery stock, that Dakota needed a horticulture of her own. But South Dakota, like all other new states, has had to get her experience in tree planting by doing. It was during this period of its development that the idea of South Dakota ever raising fruit was almost killed. Nor did some of our neighboring nurserymen (I hope there are none of them here to-day) help matters in the least when they permitted, or in some instances sent out, smooth-tongued peddlers to make the farmers believe that anything and everything would grow in South Dakota. They in this way supplied the farmers with many dollars' worth of tender nursery goods, which would have been very dear as presents to most of them.

We must not blame the nurserymen alone for all the early failures, as many are due to the practice of fall planting, which was so common in early days. Professor N. E. Hanson very fully forbids fall planting when he says, "Don't do it, for our Dakota winter winds will drive the sap from a fence post." In many parts of our state remnants of orchards of early days lift their heads but little above the quack grass and weeds among which they have been left to die.

It is more than probable that the factor most detrimental to our early work was the unsubdued condition of the soil planted upon. The majority of our farmers came from Minnesota, Iowa, Wisconsin and Illinois, in which states they had seen the soil subdued with less labor and trees and shrubs grown with less care. They soon found to their sorrow that it was utterly impossible in three years, with ordinary treatment, to kill the quack grass which grows so abundantly on our breaking.

Such were the early drawbacks to growing fruit in our state,

but in spite of these difficulties many successful orchards were established. The past few years we have been greatly encouraged over the prospect that soon we should be able to supply the greater portion of our home demand. By correspondence, reaching nearly every organized county in the state, I learned that in all parts of the state a few men are meeting with fair success in growing fruit. And every successful orchard in the state becomes an object lesson of the highest value, encouraging and teaching every passer-by the lesson that to some seems hard to learn, the lesson of successful fruit culture.

Many of our farmers find it exceedingly difficult to get trees, even from well established nurseries, that are true to name, and hardly ever is this possible from tree agents. As a rule, these agents find a nursery overstocked with undesirable trees, which they buy at a great reduction in prices, then re-label and send out for whatever the order calls; and as most of our trees have been bought from roaming agents, is it any wonder that so many of them have failed? Under the prevailing system, it is essential that live nurseries have agents to advertise their stock, for not one farmer in one thousand would ever go to the nursery at the proper season to procure the necessary trees and shrubs to plant a farm.

We feel and believe that if we were able to control the varieties and quality of the supplies that will be planted in the state for the next five years, we could do more for the fruit growing industry of the state than could be done in any other way. But as long as nurserymen will send out any of the tender varieties as suitable stock for our planting, we are under the influence and at the mercy of these men whose interests are not with us. So what we need first of all are good, honest, interested and experienced men, who will use their influence as to varieties and will send out only those that are sure to stand. In this way they can gain the confidence as well as the patronage of the true farmer.

DROUGHT THE SEVEREST TEST.

We have come to believe that the cold winters are not our worst enemies but rather that our high, dry atmosphere, which is so abundant in all parts of our state, is the severest test of hardiness. From experience we know trees from an atmosphere as dry as ours though much warmer will stand much better than those from a moist atmosphere even though located in colder climates. At different times planters have tried to avoid this failing in the trees by starting small nurseries in the semi-arid belts, thinking that trees grown there would stand the dry atmosphere, but too small a percentage of the grafts live through the first winter or on account of the drought ever start at all. The main trouble came through the tender roots killing out during the winter, but this is partially overcome by the use of Siberian stocks or propagation by means of the cutting graft. Since we realize that most of our supplies must come from moist atmospheres, we must select those varieties that will stand the drought.

Eastern and southeastern Dakota's climatic conditions are very moist as compared with the central and western parts of our state. Several varieties of trees are known to do well in the eastern part which utterly fail in the western. The hard, or sugar, maple, which is a native of Minnesota, Wisconsin, Canada and recently found in South Dakota, where the atmosphere is cold but damp, fails completely in those parts of the state where it is very dry. The Golden prune, a native of California, is a grand success in parts of our state. It is for the same reason that the Fameuse apple thrives in Canada but is a rank failure in South Dakota. From this data, the sooner we give up the idea that it is our cold winter alone that kills our trees, the sooner will our prairies be dotted with orchards and plantations.

SEVERAL DRAWBACKS.

Another drawback has been the lack of cultivation, both before and after planting. We have a very hard subsoil, loosening of which manifestly aids the tree planter. In an experiment at the College Station as to the behavior of the roots of seedling trees with ordinary culture or on sub-soiled land, it was fully demonstrated that there was a great advantage to be had by subsoiling. Many growers have found it beneficial to give complete culture to the orchards and never seed them to grass or clover, for as soon as the grass once gets started the trees cease to grow. Probably the hardest question to solve is the one of late spring frosts. It has been estimated that the crop of 1897 was reduced 90 per cent. by the frosts the latter part of May. It seems almost an impossibility to pile up enough brush, straw etcetera, to keep the temperature above freezing for a period of three or four nights in succession, but, many of our most successful men are doing this.

Until recently our orchards have been comparatively free from blight, but last year seems to have been a bad year, for out of fifty varieties of mostly Russian apples and crabs the Shields crab was the only one that was perfectly free. The Martha and Duchess were only slightly affected, while the Early Strawberry and Transcendent crabs were so badly used up that it was found advisable to remove the trees bodily from the orchard.

During the past five years the jack rabbits have been increasing so rapidly as to cause no little alarm as to how we are to protect our orchards. It is not an uncommon thing to see them running in droves from fifty to one hundred and fifty. As yet they are not doing the damage that the wood, or cottontail rabbits are doing, because they do not burrow under the snow, but rather prefer the young, tender shoots which project above the snow, and are especially fond of one year old trees. The average farmer will be able to protect his few trees from rabbits by means of wire netting or laths and wire, which will serve also as a protection to stems of trees from sun-scald.

OTHER FRUITS.

Aside from the apple, other fruits have met with similar drawbacks. In parts of our state, and more especially along the Missouri river, are thickets of wild plums of the yellow and red varieties. They are, of course, hardy and adapted to the climate, except where the trees have been pruned very high, in which cases the stems have become sunscalded, which is common in all orchards where the trees have not been headed very low. Scattered over the state are a few very creditable plum orchards grown from pits and trees obtained along the river.

The Buffalo berry (*Shepherdia argentea*) and sand cherry (*Prunus pumila*) are both being cultivated, with the expectation of developing palatable fruit from them.

Strawberries have done fairly well where they have had a reasonable amount of care, but too many people take care of them during the fruiting season only, and many patches have fruited accordingly. Gooseberries and currants have proved a grand success in the driest parts of the state when planted and properly cared for.

We have comparatively little rain in the western and central portions of our state, but the soil is remarkably retentive of moisture and under thorough cultivation yields up for the use of growing crops all the moisture necessary for their perfect development.

We of South Dakota are learning the secret of successful horticulture: we must stop plowing four inches deep and begin to plough twelve; we must continue to cultivate, we must all become horticulturists, in that we put a great deal of labor upon a little land. We have learned that groves that will hold the winter snows and send them melted over the fields in spring are almost as good as artesian wells.

THE GROWTH OF CUTTINGS.

Answering a correspondent in the *Rural New Yorker*, H. E. Van Deman says: "Cuttings of the Le Conte pear will strike root easily in some climates and soils. Kieffer does not root so easily. Sandy and loose soil is suitable. The natural conditions must be somewhat similar to those which the gardener has who induces cuttings of various kinds to strike root in a greenhouse, where he uses bottom heat to induce the roots to grow. A cold, clammy soil is not like this, and the cuttings cannot strike root easily where the air and warmth of the sun do not penetrate readily.

"Speaking from the standpoint of the scientist, a cutting of any kind of tree or plant will grow if treated rightly, but from the standpoint of the practical propagator, it is not so. The science of cuttings forming roots is that, under favorable conditions, the cells of the cambium layer multiply and grow out into a whitish mass which we call callus; if kept in the ground or in such place as will furnish the right conditions, the new cells will organize themselves into tender rootlets, and finally, into substantial and vigorous roots. When this process can be induced easily and cheaply, the practical grower says that the cuttings of this or that kind will grow, as for instance, those of the grape and currant. Those of the oak and pine will grow too, if they can be kept in such a state as to induce the callus to form, and then the roots, before the buds expand too much, and the leaves grow and consume all the nourishment stored in the buds and twigs, and evaporate the moisture in the cutting. The roots gather food and water, and the growth and leaves consume them. If the consumption is more rapid than the supply, then death must ensue.

I have experimented in the open ground with cuttings of oak, walnut, hickory, maple, poplar, elm, ash, wild cherry, apple, pear, peach, plum, etc., and got excellent starts from the oak and other large-budded kinds; but their death was sure and swift in the end. When the store of starch and sugar had been consumed by the expanding leaves, there being no roots to absorb more of the elements of plant food and water from the soil, they had to die from starvation and thirst.

In Common Council.

DECIDED IMPROVEMENT.

Editor NATIONAL NURSERYMAN :

We certainly think there will be a decided improvement for spring trade, and hope there will be for fall. There is no question that some of the leading kinds of stock are scarce and will bring more money. We believe that stock will be cleaned out closer before spring trade is over than it has been for a good many years.

Painesville, O.

THE STORRS & HARRISON Co.

AT GREELEY, COLO.

Editor NATIONAL NURSERYMAN :

From what I can judge, and the number of orders that we are getting in, there is every prospect of a good fall trade, and we find that prices are better than last year and seem to be upward in tendency. The farmers have promise of a good crop of wheat and potatoes through this country, which is the staple product here. In a general way business outlooks are good and seem to be improving.

A. RILEY FOR GEO. S. SPEAR.

Greeley, Colo.

CURTAILED STOCKS; BETTER PRICES.

Editor NATIONAL NURSERYMAN :

The outlook for fall and spring trade at this point shows a marked improvement compared with this time last year. Not only is the demand good, even strong, but prices are decidedly better.

We believe that stocks will be entirely used up in some lines before wants are filled.

The future supply of stocks is decidedly curtailed owing to light plantings. Providing unforeseen factors do not enter, we can see no reason why prices will not improve.

Dansville, N. Y.

C. F. MACNAIR.

LARGE SHORTAGE IN APPLE AND CHERRY.

Editor NATIONAL NURSERYMAN :

The outlook for the nursery trade in the West is far beyond the normal. The surplus stock was all used up last spring and that in the face of increasing prices. Our statistics show a shortage in apple 1,000,000 and also a large shortage in cherry with peach a little below the normal and a good demand.

Buyers of stock do not seem to appreciate the true condition of the trade and somebody is going to be greatly fooled before spring of '99 comes around.

North Topeka, Kan.

A. L. BROOKE.

AT GENEVA, N. Y.

Editor NATIONAL NURSERYMAN :

The outlook for the nursery business is a little more encouraging than the past two seasons. Light plantings have been made the past season and this will tend to increase the price of stock on hand.

Apples are short, and are commanding better prices. This might also be said of sour cherries. Standard pears seem to

be rather slow to move at low prices. We look for better prices before spring packing. A terrific hail storm visited the southern part of this place on August 17th, doing much damage to orchards, nurseries, and farm products, in the line of the storm. Maxwell Bros.' extensive quince and plum orchards, located one mile south of the village were nearly ruined by the storm. Entire blocks of young nursery stock were injured badly by the hail.

Geneva, N. Y.

E. SMITH & SONS.

SHARP DEMAND IN SOME LINES.

Editor NATIONAL NURSERYMAN :

The amount of stock sold by us thus far at wholesale is just about the same as we had placed at this time last year, but we are following a little different policy this season, which hardly makes the comparison a fair one and which, if taken into consideration, would show a rather better trade for this season than last. Heretofore, we have always gotten out our price list quite early in the summer, about the middle of July in fact, but we made up our minds that it was not advisable to try to force sales so early in the season as that, as it seemed almost impossible, while stock is so plentiful, to get any large quantity of orders placed until well along toward shipping season. This year, we are sending out our price list the last of this month and, of course, that makes quite a little difference in sales.

We are of the opinion that the general outlook is very much better than it has been for several years past. Without exception, all the retailers with whom we have talked report sales very greatly increased over last year and this cannot but make a better wholesale demand. In some of our lines, we already find quite a sharp demand for stock and upon some articles we are already cleaned out quite closely.

Newark, N. Y.

JACKSON & PERKINS Co.

GOOD CLEAN-UP NEXT SPRING.

Editor NATIONAL NURSERYMAN :

Regarding the outlook for the fall nursery business, we think it is decidedly better than it has been for some years. Some lines of stock will certainly be much scarcer, and probably shorter than the demand. Of course it is a little early yet to judge very much regarding this only from agents' sales, which so far have been very good, and we believe will show up better for the rest of the season than they have done for the past four or five years. And we hope to see the improvement continue, and confidently look for a better clean-up next spring than the nurserymen have had for many years.

Apple will be especially scarce in the West, and the surplus of cherry will not be near what it has been. Pears and plums are reasonably abundant, but we believe these will also be used up pretty closely with the spring packing.

Our season has been very favorable, only two or three weeks of very dry weather. We are now having an abundance of rain and stock generally is making a good growth. Farm crops have been exceptionally good, and prices ranging considerably higher than for the past few years certainly indicates a far better tone of business generally than we have had heretofore.

Bridgeport, Ind.

ALBERTSON & HOBBS.

In Nursery Rows.

PEACH BUDDING—If in limbs of trees or strong stocks, says Samuel Miller, Bluffton, Mo., I prefer the triplet buds, taken from bearing trees if to be had. The middle one makes the shoot, the outside ones being the blossom buds. In small stocks, I prefer buds from small budded trees of the same year's growth, as all these may be depended upon, none, or at least seldom a blossom bud among them. If you take single buds from bearing trees you may have a blossom bud and nothing else.

RESULT OF SUBSTITUTION.—The reader who wisely determines to learn how to grow trees himself, and make sure of having the varieties desired, and of full success in transplanting, says an exchange, must see to it that the stocks he wishes to bud are in a thrifty growing state, while the buds themselves should be firm, plump and browned with full ripeness—such as may be found in August on the sunny side of a healthy tree fully exposed to light, with the terminal bud as fully developed and ripe as any.

SEEDLESS JAPANESE ORANGES—A. D. Hawks, Sierre Madre, Cal. says Californians are growing too many Washington Navel oranges; that 2,000,000 of the 3,750,000 trees of this variety are bearing and the fruit must be marketed within eighty days. He says the Oonshui orange trees of Japan, the hardiest of the citrus family, are being imported by B. B. Barney of Riverside. These nurseries are in a scale less region, says Mr. Hawks, trees are all guaranteed true to name, budded on the hardy citrus Trifoliata, which has a life of one hundred years or more, and it is significant that at this, the first home of the Washington Navel, they are finding ready sale among the most intelligent Riverside horticulturists. I have two acres of them at Sierra Madre and no ax to grind, no trees to sell. But, I think that 3,000 acres of them in Southern California would command for the fruit fancy prices in the early markets of our country.

LAYERING RASPBERRIES—We begin layering the early varieties of black caps in the latter part of August and finish up with the late ones along about the 25th of September, says Charles C. Nash, of Michigan in *American Gardening*. Last year we commenced layering Conrath, Eureka, and Kansas varieties on August 19. Those which are layered in good season seem to give the best satisfaction. If I had plenty of time I should prefer to layer most varieties as soon as of a creamish to snakey appearance at the tip. Many nurserymen object to layering very early for the reason of the laterals growing so vigorously and becoming so brittle that they break part way off but we have not been bothered with them to be worth while speaking of. Those like the Gregg seem to do this more than some other varieties. For propagating tip plants I would select a sandy loam which was well drained naturally and of not too leachy a subsoil. This kind of soil permits of easy layering, and, being well drained, the plants can be dug very early in the spring. By layering only single layers, strong, heavy tips can be raised, but if a larger amount of plants is desired instead of size, the terminal bud of each single lateral can be nipped in, and layered two or three weeks later. Often a person can grow from two to three times as many plants by this method, but it is only useful to get a large number of plants from some new varieties of which there are only a limited number of hills to propagate from.

Obituary.

Isidor Bush, head of the firm of Bush, Son and Meissner, grape growers, Bushberg, Mo., died August 5th, aged 76 years. He wrote a work on grape culture which reached four editions, and was translated into five different languages. He was also prompt, if not the first, to seize the opportunity, resulting from the ravages of the phylloxera in Europe, of shipping large quantities of immune grape cuttings and plants of our American varieties. His firm was also among the earliest to propagate the grape from single eyes under glass in large quantities.

THE DIKEMAN CHERRY.

The frontispiece of this issue presents an excellent view of the latest ripening sweet cherry known. Its introducer is the well-known nurseryman and horticulturist, S. D. Willard, Geneva, N. Y.

This cherry is black, of the Bigarreau type. The flesh is firm making it an excellent shipper. It is unexcelled as a producer. The original tree is said to have produced from ten to twelve bushels of fruit the past season. The fruit was on exhibition at the state fair in 1897, attracting the attention and admiration of all. At the coming state fair fruit from the original tree will be exhibited.

Following are expert opinions on this most promising fruit :

REDFIELD & SON, Importers and Wholesale Dealers in Florida, California, West India and Mexican Products, 141 Dock St. Commission Merchants in Fruit and Produce.

PHILADELPHIA, PA., Aug. 3, 1897.

S. D. Willard.

DEAR SIR:—The small sample of cherries you sent us about two weeks ago is still here in the same box and has been on our desk without further protection. We have only thrown away three out of the lot and they only part rotten and we think come from a bruise. No doubt but this information will be of value to you.

Yours truly, [Signed] REDFIELD & SON.

U. S. DEPARTMENT OF AGRICULTURE, Division of Pomology, WASHINGTON, D. C., July 27th, 1897.

Mr. S. D. Willard, Geneva, N. Y.

DEAR SIR:—Yours of the 17th inst., accompanied by specimens of the Dikeman Cherry addressed to Prof. Heiges, the former Pomologist of this department, was duly received. The specimens, although evidently picked before fully mature, indicate that the variety is of good color and quality, and firm enough to be a good shipper. I judge that these specimens should have remained upon the tree at least a week longer to have reached full maturity. I do not know of any Bigarreau so late as this that combines as many promising features.

Thanking you for the specimens sent and trusting to hear from you whenever we can be of any service, I remain,

Very truly, [Signed] WM. A. TAYLOR,
Acting Pomologist.

NEW YORK, July 22d, 1897.

Mr. S. D. Willard.

DEAR SIR:—Your letter at hand, also the box of cherries. We have examined them very closely and would have answered your letter before but have waited to see how the Dikeman keeps in the open air. The cherries have now been on my desk two days and there is not a speck on any one of them, and it is five days since the cherries were picked.

It seems to me that this is the firmest cherry I have ever seen at this time of the year. It comes at a time when sweet cherries are very scarce. Californias are through and also all other sweet cherries from the Hudson river and from the West, hence it has no cherry to compete with, which means a good price. This cherry compares most favorably with the Californias which are noted for their keeping qualities. Without any exaggeration, it is the best cherry we have ever seen grown in this section of the United States. We wish you every success in introducing it to the growers. If the cherry possesses no other merit its shipping and keeping qualities should make it a favorite among growers; it not only has these qualities but contains all the other qualities of a fine cherry, in its color, sweetness, size, etc.

[Signed] G. M. SNYDER & Co.,
No. 207 Duane St.

Many other opinions of similar import have been received. Mr. Willard is prepared to furnish trees of the Dikeman.

Among Growers and Dealers.

In 1895 there were 150,000 acres planted to fruit trees in Iowa.

Buds of Delaware peach can be had of Myer & Son, Bridgeville, Del.

Josiah A. Roberts, Malvern, Pa., presents in another column a surplus stock list.

Clark Earl Gardner and Miss Grace Bush, of Osage, Ia., were married on August 18th.

Nichols & Thompson, Ridgeland, Miss., are propagating pecan trees with great success.

Currants, gooseberries and flowering shrubs are offered by W. H. Salter, Rochester, N. Y.

Snyder and Erie blackberry plants can be had of A. E. Atwater & Son, Cheshire, Conn.

S. H. Watson has succeeded William Watson at the Rose-dale Nurseries, Brenham, Texas.

A nursery office man, 34 years of age, desires a situation. He has had 15 years' experience.

Benjamin Chase, Derry, N. H., never was busier in the shipping of wood labels of all kinds.

Virgil Bogue, of Albion, has bought a half interest in the Anson Bogue nurseries of Batavia, N. Y.

Pin oaks and hemlocks are a specialty with William Warner Harper, Chestnut Hill, Philadelphia, Pa.

The Yokohama Nursery Co., 11 Broadway, New York City, is said to conduct the largest nursery trade in Japan.

Experienced men for grafting, packing and planting are wanted by the Griffing Brothers Co., Macclenny, Fla.

Everbearing mulberries can be had of Carolina Nursery Co., Selma, N. C., who have a large stock at low prices.

The seventh annual session of the National Irrigation Congress will be held in Cheyenne, Wyo., on September 1st—3d.

Seedlings of many varieties, fruit trees and Bechtel's double flowering crab are offered by Peters & Skinner, North Topeka, Kan.

Marianna plum and other fruit stocks will be scarce, say Thomas Meehan & Sons, Germantown, Pa. They have a full supply.

A small nursery of date trees of the Tunis, Persian and Fard varieties has been established in the Salt River valley, Arizona.

Trees, plants and moss are admitted free into Cuba, the Philippines and Porto Rico under the tariff which went into effect last month.

The apple crop in Canada will be larger than that of last year though less than that of 1896. Many orchards are just coming into bearing.

For fifty two years E. Smith & Sons, Geneva, N. Y., have been dealing in nursery stock. They are offering special inducements to the trade.

The Fruitland Nurseries at Augusta, Ga., are now conducted by the P. J. Berckmans Company. They have a large and varied list well worth perusal.

For park and street planting Nelson Bogue, Batavia, N. Y., offers exceptional inducements. His announcement in another column should fill any want in this direction.

Campbell's Early Grape, praised on all sides; also other first class grape vines can be had of George S. Josselyn, Fredonia, N. Y., the introducer of Campbell's Early.

The Geneva Nursery, W. & T. Smith Co., Geneva, N. Y., is headquarters for ornamental trees. There is a superb collection of shrubs and fruit stock of the highest quality.

Right from Camp Alger comes word of the nursery business in Virginia, for at Falls Church in that state D. O. Munson has 50,000 first class peach trees, one year from bud, free from scale and yellows.

Vick & Hill entertained local nurserymen at their grounds at Barnards Crossing, N. Y., last month. There was a similar outing at the spacious grounds of James Vick's Sons, Despatch, N. Y., a little later.

The Spaulding Nursery and Orchard Co., Spaulding, Ill., are asking for a list of wants and call especial attention to their pear trees. They have a complete line of fruit tree stocks, cordage and burlaps.

D. H. Patty, Geneva, N. Y., has a fine stock of Kilmarnock willows, dwarf pears, standard pears and Champion quince as announced in another column, on land he is obliged to clear off, and offers them at an extremely low price. He will exchange any of the above stock for sour cherries.

E. Albertson, Bridgeport, Ind., vice-president of the American Association of Nurserymen; Thomas B. Meehan, Germantown, Pa.; George S. Josselyn, Fredonia, N. Y.; Herman Berkhan, New York city, and William E. Rossney, Bloomington, Ill., met in Rochester early last month and passed several days among the nurserymen of the Flower City. All reported an improvement in business.

The following are the varieties of fruit and the number of each that are growing on the Geneva, N. Y., experiment station grounds: Apples, 671; crab apples, 22; pears, 240; quinces, 11; apricots, 36; cherries, 75; peaches, 147; plums, 243; grapes, 675; currants, 102; gooseberries, 479; blackberries, 34; dewberries, 49; raspberries, 123; strawberries, 113; total number of varieties, 3,020.

The annual excursion of the employees of Messrs. Wm. Fell & Co., nurserymen, etc., Hexham, took place on August 4, when they, to the number of between seventy and eighty, were entertained by the firm to a pleasant trip to Whitby, Yorkshire. The weather was fine, and a most enjoyable day was spent in visiting the sights in the neighborhood, including the Abbey, Robin Hood Bay, etc.—*Gardeners' Chronicle*, London.

Says the Topeka *Mail and Breeze*: "Hon. A. L. Brooke, who has been renominated by the republicans of the country district of Shawnee county, was one of the strong men on the republican side of the last house of representatives. His experience and acquaintance will make him a leader in the next legislature. Mr. Brooke is one of Shawnee county's successful farmers and nurserymen. He is a good campaigner and will run ahead of his ticket. He is a native of Fairfield county, Ohio. He received a collegiate education in Fairfield Academy and Wittenberg college at Springfield, Ohio. He moved to Kansas in 1886, having spent fifteen years teaching in the schools of Ohio and Indiana, ten of which were as principal of the public schools of Groveport, Ohio. Mr. Brooke has been president of the Shawnee County Republican League, and has always been an active and stalwart republican."

The National Nurseryman.

C. L. YATES, Proprietor.

RALPH T. OLCOTT, Editor.

PUBLISHED MONTHLY BY

THE NATIONAL NURSERYMAN PUBLISHING CO.,

305 COX BUILDING, ROCHESTER, N. Y.

The only trade journal issued for Growers and Dealers in Nursery Stock of all kinds. It circulates throughout the United States and Canada.


OFFICIAL JOURNAL OF THE AMERICAN ASSOCIATION OF NURSERYMEN.

SUBSCRIPTION RATES.

One year, in advance,	-	-	-	-	-	\$1.00
Six Months,	-	-	-	-	-	.75
Foreign Subscriptions, in advance,	-	-	-	-	-	1.50
Six Months,	"	"	-	-	-	1.00

Advertising rates will be sent upon application. Advertisements should reach this office by the 20th of the month previous to the date of issue.

Payment in advance required for foreign advertisements.

 Drafts on New York or postal orders, instead of checks, are requested.

Correspondence from all points and articles of interest to nurserymen and horticulturists are cordially solicited.

AMERICAN ASSOCIATION OF NURSERYMEN.

President, A. L. Brooke, N. Topeka, Kan.; vice-president, E. Albertson, Bridgeport, Ind.; secretary, George C. Seager, Rochester, N. Y.; treasurer, C. L. Yates, Rochester, N. Y.

Executive Committee—C. L. Watrous, Des Moines, Ia.; Robert C. Berekmans, Augusta, Ga.; F. H. Stannard, Ottawa, Kan.

Committee on Transportation—A. L. Brooke, ex-officio, chairman; William Pitkin, Rochester, N. Y.; Peter Youngers, Geneva, Neb.; Wilson J. Peters, Troy, O.; Robert C. Berekmans, Augusta, Ga.

Committee on Legislation—C. L. Watrous, Des Moines, Ia.; N. H. Albaugh, Tadmor, O.; Silas Wilson, Atlantic, Ia.; Thomas B. Meehan, Germantown, Pa.

Committee on Tariff—Irrving Rouse, Rochester, N. Y.; J. J. Harrison, Painesville, O.; N. W. Hale, Knoxville, Tenn.

Annual convention for 1899—At Chicago, Ill., June 7, 8.

Entered in the Post Office at Rochester, as second-class matter.

ROCHESTER, N. Y., SEPTEMBER, 1898.

MODERN METHODS.

Whatever may have been said of the nursery agent in the past, certain it is that present methods, recognized as leading to the greatest success preclude misrepresentation in regard to nursery stock. So much has been heard so long of the wiles of the nursery agent that upon the slightest provocation someone breaks out even now in a tirade against him.

C. L. Smith, Minneapolis, answering E. H. S. Dartt who intimated that the foreign tree dealer discounted the local tree dealer in his ability to prevaricate, said:

"With an experience of over forty years with the so-called foreign tree dealers, I have found that the successful foreign tree dealer, the most successful tree dealer, does not necessarily need to be a liar. On the contrary, he is the man who collects the facts and truths as he finds them on the farms and through the localities where he works and then presents them to his prospective customers in such a manner as to claim their consideration by telling them the truth; and a man can succeed many times by telling the truth where he would fail

by telling a lie. They tell the truth and tell it in a tactful way, they tell it in an attractive way so it will draw attention. I do not think it necessary to be a liar in order to be successful in the nursery business."

WORK FOR LEGISLATIVE COMMITTEES.

Under an order issued June 17th the postal authorities have declined, since July 1st, to return to sender undelivered second, third and fourth-class matter until the postage has been fully prepaid. When postmasters deem undelivered matter of sufficient value they may notify the sender, who can then send the return postage.

The subject is of much importance to nurserymen who issue catalogues. There is opportunity for the legislative committees of the American, Eastern and Western Associations to act.

The postal order requiring that all sheets transmitted with publications be attached thereto does not apply to third class matter under which head catalogues are admitted to the mails.

SOUTHERN NURSERY BUSINESS.

Through the medium of the Western Wholesale Association and the Eastern Nurserymen's Association, in joint action with the American Association, nursery interests East and West receive careful attention. At the convention of the American Association last year in St. Louis, President Brooke advised the nurserymen of the South to organize a Southern Nurserymen's Association for mutual benefit. It would seem that such action might well be taken. The single matter of transportation of stock is of sufficient interest to warrant it.

Before the Civil War there were practically no nursery interests in the Southern States. In an exchange J. Van Lindley calls attention to the phenomenal growth of the business in the South during the last fifteen years. He cites fourteen nurseries in Alabama, thirty-five in Arkansas, ten in Florida, twenty-five in Georgia, ten in Mississippi, twenty in North Carolina, two in South Carolina, thirty-five in Tennessee, thirty-two in Texas, thirty in Virginia; a total of 213 in the ten states.

HORTICULTURAL NOMENCLATURE.

We have several times called attention to the advisability of rules regarding nomenclature. Already there are rival claimants for the name of Dewey for varieties of strawberries. The rules of the American Pomological Society state:

Should the question of priority arise between different names for the same variety of fruits, other circumstances being equal, the name first publicly bestowed will be given preference.

But what constitutes public bestowal? Professor F. A. Waugh, of Vermont, has just issued a pamphlet, retailing at ten cents, on this subject. He says regarding the publication of new names:

The only difficulty in the way is the looseness and carelessness which often characterize such publications. Many nurserymen get out elaborate catalogues, with the dates carefully given, with new varieties most painstakingly described, and with names carefully selected. Other nurserymen announce a new variety with a very bombastic and ridiculous name by sending out an utterly unreliable description printed on a loose sheet of paper and slipped in between the leaves of an old catalogue published several years previous. It is obvious that

the latter announcement does not bring a variety properly before the horticultural world, and that it cannot constitute a "publication." The difficulty arises in drawing the line. Such a line cannot be prescribed here in terms which will prove universally satisfactory; but it will be safe to say that any variety name may be considered published when it is given in connection with a true description in a catalogue which bears the date of its publication, and which is generally distributed among nurserymen, fruit growers, and horticulturists.

THE INTERNATIONAL CONFERENCE.

Perhaps an outcome of the international conference at Quebec may be the withdrawal by Canada of the prohibition on United States trees and shrubs. Certainly this subject should be brought to the attention of the American commissioners by the nurserymen of the states. Sir Wilfrid Laurier insists that all questions must be settled.

ATTRACTIVE ANNOUNCEMENTS.

The present issue of the NATIONAL NURSERYMEN is a good indication of the return of confidence in business circles. Its advertising columns bristle with attractive announcements, and wants must be hard, indeed, to fill if the selection cannot be made from this issue.

Our advertisers constitute practically a complete list of the most prominent nurserymen of this country as well as a number in foreign lands. We believe they offer the cream of the stock, and we bespeak for them the success which their efforts deserve.

SOCIETY OF AMERICAN FLORISTS.

The fourteenth annual meeting of the Society of American Florists and Ornamental Horticulturists was held at Omaha, August 16th—19th. Mayor Moore's welcome was followed by President Gude's address. There were a number of papers, reports and a trade exhibition. W. N. Rudd, of Chicago, was elected president; Philip Breitmeyer, of Detroit, vice-president; William J. Stewart, of Boston, secretary; H. N. Beatty, of Oil City, Pa., treasurer. The society will meet in Detroit next year.

A SCALE SUGGESTION.

Every reputable nurseryman, says a writer in an exchange, is watching his stock with the utmost care and destroying or treating everything infested in the slightest degree, and will ship nothing which is not known to be absolutely free from San Jose scale. Experiments prove that fumigation with hydrocyanic gas will destroy all insect pests. This is a somewhat difficult process for growing stock but becomes a very simple one after the trees are dug. Every nurseryman, therefore, can readily and at small cost make absolutely certain that nothing which he is sending out is infested.

Let a severe penalty, therefore, be provided against the shipment or sale of infested stock and give the buyer, as well as the state, the right of action for recovery of the penalty. Provide for the immediate quarantine and thorough treatment of nurseries in which any stock is infested and for the destruction of the stock, when so badly infested as to be necessary. These provisions will call a halt on the careless and unscrupulous dealer who is really the only one to be feared.

A LAND WITHOUT A NURSERY.

Nurserymen who complain of the results of competition may be surprised to learn that in a certain part of United States territory there is not a single nursery. The *Rural New Yorker* publishes a letter from C. E. Haskins of Oregon to Professor H. E. Van Deman, in which the writer detailing his experiences in the Hawaiian islands says:

A German horticulturist took to me, and we went all over the islands together. I formed the acquaintance of all the officials in the agricultural and pomological departments, and saw all of their many kinds of fruits, nuts, plants, etc. I found them all very interesting, but must say that I was surprised to find that there was no such thing as a nursery such as we have, in all the Hawaiian Islands. No fruits are grafted or budded, as we do in the United States. They simply plant the seeds and trust to luck, just as our grandfathers did with the old seedling apple orchards. I did some budding of oranges, and grafted some mango trees, and found it as easily performed and as sure as at home, if everything was properly handled, and at the right time.

Fruits vary from seed here as elsewhere, and I found some of the finest individual varieties among the mango trees as well as among other fruits. But after learning all I could, I do not think it would pay to grow anything in the fruit line, and ship it over 2,000 miles to market; but for home use, it would pay to grow better fruits.

All kinds of fruits can be had twelve months in the year—Papaya, pineapple, banana, custard apple, mango, orange, lemon, fig, palms of all kinds, strawberry, water lemon and many other fruits, and in numberless varieties.

ICED STRAWBERRIES.

T. J. Dwyer, Orange County, N. Y., gives in the *Rural New Yorker* the following description of a plan for extending the strawberry season:

The plants were set in June, 1897, and were pot-grown plants that had been kept in cold storage. They were fruited in a small way in September of that year, so that this is their second year of fruiting. Mr. Dwyer thinks that they would bear even more fruit next year than they did this. The plants were covered last fall, after the ground had frozen, with about two inches of eorn stalks and other litter. There was one foot of snow on the ground January 22, when they began putting on the first layer of ice, which was 16 inches in thickness. The second layer of ice was 14 inches thick. This work was finished February 5. Thus there were 2½ feet of ice on the plants. To be exact, it took 680 tons of ice to cover the quarter of an acre. On top of this ice, were put 7½ tons of buckwheat straw, etc., or a covering about eight to ten inches deep. This was put on between February 15 and 27, and nothing further was done until my first visit April 14, when as before stated, an examination of the plants was made, and everything looked favorable.

May 20, one row was uncovered and, of course, the fruit from this row ripened some time before the rest of the rows. The covering of straw was removed a little at a time, making six separate jobs of this work. On June 23, all the straw with some small pieces of ice on different portions of the patch was removed. The ground was then mulched. The first ripe fruit was picked from the Marshall July 16. August 8, the ground was quite free from weeds.

A bed of strawberries 20 feet square will give plenty of fruit for a good-sized family. If one has a bed of this size, of course in addition to the bed for the regular fruiting period, and 25 tons of ice, he can have strawberries for three months. Use one layer of ice for the early retarded fruit, two layers for the second early, and three layers for the very late fruit. What the cost of icing these plants will be will depend entirely on circumstances. Often the conditions are such that it can be done for \$10, and I would name \$25 as the highest cost.

M. J. GRAHAM, ADEL, IOWA.—"Herewith find one dollar in payment of my subscription. The NATIONAL NURSERYMAN is all right, and is indispensable to the nurserymen who would keep up with the procession."

RUSSIAN FRUIT IN IOWA.

After ten years of extensive trial it must be said that for the south half of Iowa at least, the experiment with Russian fruit has been not only a disappointment, but a serious and costly failure, writes C. L. Watrous. To recommend the extensive planting of these fruits in this district would now seem little less than criminal.

It is well to be enterprising and keep as near the front of the procession in one's own calling as possible, but in few ways is it easier to lose money than to be too ready to plant largely of new and untried varieties because some one recommends them. If a new fruit or plant is offered, having originated near by and under substantially the same conditions, it may safely be planted with far less experience than if it comes from a different botanical region, especially if from another continent. A seedling must find favor at its place of origin, if at all, for the reason that it is especially adapted to the conditions of soil and climate prevailing there. It succeeds there because its constitution is fitted to those conditions, and it follows of necessity that the chances are strongly against it being equally well adapted to succeed under the quite different conditions of a different state or country.

All this was specially emphasized in the season of 1896 of uninterrupted sun, which was so favorable to the rapid increase of insect life, so that we may properly consider this as another of the beneficial lessons taught by our lean year. The season was not without its uses also in winnowing out from our lists undeserving varieties. I will not attempt to account for the facts observed, but it was true on my grounds, as I pointed out to many visitors, that foreign varieties of fruit of late introduction suffered far worse from insect ravages than the average of our old sorts cultivated and acclimated here for a quarter century or more.

The Russian apples, both in nursery and in orchards, were examples strikingly in point. There was an unusual activity of the leaf roller and leaf skeletonizer, and but for the spraying apparatus, the injury would have been irreparable.

In one nursery of two-year trees, one might readily distinguish two hundred yards away the rows of Russians of the Hibernian family, intermingled with rows of various older sorts, the broad leaves of the Russians turning red and dry under the same care which produced a fair degree of health and vigor in the leaves of the others. I can only account for this lack of resistance on the part of the foreigners by the fact that our conditions must have been in some manner less favorable to their vigor than the conditions of their native places.

One of our most famous physiologists affirms that it takes at least four generations of men to adapt a people to the conditions of a continental change of climate, and that the adaptation is secured only at the expense of much mortality and a profound change of physical and nervous organization. Now it is a plain fact that a tree must be far less able to withstand the vicissitudes of a change than a man who may vary at will his food and dress and shelter, as seems to suit his physical needs, while the tree or plant is rooted to one place and subject to the full force of every unfavorable influence. I have thought it advisable to grub out the last of my Russian plums and cherries, and I believe that the last of the pears and apples, save one or two, must share the same fate.

CONDITIONS IN CANADA.

Editor NATIONAL NURSERYMAN :

Trade in our line shows a marked improvement this season. There is a more hopeful feeling in all lines of business in Canada. Although in some sections the country has suffered from drought, as a whole crops are very superior, and as prices will be good, there will be considerable money to spend.

In fruit there is no large planting being done, as for a number of years there seems to have been an over-production in small fruits, peaches, pears and plums ; but farmers generally are buying more freely, and the business is brighter than we have had it in Canada for a number of years.

We believe there is ample stock grown in Canada to fill all wants.

Toronto, Ont.

STONE & WELLINGTON.

AT BERLIN, MD.

Editor NATIONAL NURSERYMAN :

We have had one of the best growing seasons for years ; about enough rain. Our block of peach one year old with over a million trees is second to none in the United States and the June-budded trees are now making a rapid growth. Our fields of asparagus roots and strawberry plants are making a wonderful growth, yet the cost of hoeing and pulling grass has been unusually heavy and the price must go higher to cover the cost.

Berlin, Md.

J. G. HARRISON & SONS.

THE PRACTICE IS VERY OLD.

Parkinson, who wrote the *Paradiseus terrestris* in 1656, says when writing of cherries : "The Arch-Duke Cherrie is one of the fairest and best cherries we have, being of a very red color when ripe, and a little long more than round, and somewhat pointed at the end, of the best relish of any Cherrie whatsoever, and of a firme substance ; scarce one of twentie of our Nurserie men doe sell the right, but give one for another ; for it is an inherent qualite almost hereditarie with most of them, to sell any man an ordinary fruit for whatsoever rare fruit he shall aske for : so little are they to be trusted."

In these days, comments *Meehan's Monthly*, the chances are 19 to 20 that the buyer would get the kind asked for, which is something to say of modern civilization. Parkinson was a druggist. It might be well to know whether dealers in pharmacy were as bad as the "Nurserie men" two hundred and fifty years ago.

Everbearing Mulberries.

LARGE STOCK. LOW PRICES.

FREIGHT PAID.

Write us before you buy.

Carolina Nursery Co., Selma, N.C.

**Hicks,
Russian,
Downing,
Black English,
White English,
New American**

NURSERYMAN WANTED !

Young, unmarried man, successful propagator, especially of Roses and Ornamentals. Only thoroughly competent man who knows his trade. Steady and permanent job. Address, stating salary wanted,


**S. H. WATSON, Successor to Wm. Watson,
ROSEDALE NURSERIES.**

BRENHAM, TEXAS.

Peters & Skinner, North Topeka, Kansas.

CAPITAL NURSERIES.

Apple Seedling

Keiffer Pear Seedling,
French Pear Seedling,
Japan Pear Seedling,
 Russian Mulberry,
Box Elder and
Osage Seedling.

Trees

Apple, Peach, Cherry,
Plum and Apricot.

KEIFFER, GARBER AND KOONCE PEAR.

Bechtel's Double Flowering Crab.

PETERS & SKINNER, North Topeka,
Kansas.

For Park and Street Planting.

American, Scotch and English Elm, Silver, Sugar
and Norway Maples, Carolina and Lombardy
Poplars, Horse Chestnuts, American White
Ash, Cut-Leaved Birch, Purpled Leaved Beech,
Catalpa, American and European Lindens.

Extra Size, 6 to 20 feet, 1 to 6 inches.

Heavily stocked with Kilmarnock and New Ameri-
can Willow, Camperdown Elm, Tea's Weep-
ing Mulberry, Siberian and American Arbor
Vitæ, Norway Spruce, and a great variety of
Shrubs and Roses.

Apples, Pears, Plums, Cherries, CURRANTS and
GOOSEBERRIES extensively grown. Better
stock never grew.

NELSON BOGUE
BATAVIA NURSERIES,

BATAVIA, N. Y.

When writing to Advertisers mention The Nurseryman.


"Largest Orchards and Nurseries in the State."

1846 E. SMITH & SONS, 1898

GENEVA, N. Y.

ARE OFFERING SPECIAL INDUCEMENTS

to NURSEYMEN and DEALERS on

Standard and Dwarf Pears,
European and Japan Plums,
Sweet and Sour Cherries,
Quinces, Apples, Peaches,
Maples, Ash, Hydrangeas,
 Roses, Evergreens
and Small Fruits.

Headquarters for new varieties of fruit.

Submit a list of wants and get our price.

New!

Plums e e e Peaches e e e
Empire, Wickson "Japan." Fitzgerald, Triumph.

From Anywhere East

To Everywhere West

The Great Rock Island Route

IS THE BEST LINE.

The Great Cities of

Northwest—West—Southwest

Reached quickly and comfortably in up-to-date through Pullman
Sleepers and Free Reclining Chair Cars operated on fast trains.

Tourists en route to the resorts of the Rocky Mountains, to California,
the North Pacific Coast or to the

GREAT TRANS-MISSISSIPPI EXPOSITION

AT OMAHA, NEB.,

should write the undersigned for rates, folders and literature.

Chas. Kennedy, G.E. P.A., Jno. Sebastian, G.P.A.,
305 Broadway, NEW YORK. CHICAGO, ILL.

When writing to Advertisers mention The Nurseryman.



VIEWS OF HUNTSVILLE AND THE ABAMA NURSERY COMPANY.

The National Nurseryman.

FOR GROWERS AND DEALERS IN NURSERY STOCK.

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VOL. VI.

ROCHESTER, N. Y., OCTOBER, 1898.

No. 9.

UNDER SOUTHERN SKIES.

Wonderful Results Produced by Intelligent Cultivation In the Mild Climate of Northern Alabama—What Ample Capital, Wide Experience and Untiring Effort Have Accomplished for the Alabama Nursery Company—Interesting Details.

In the northern part of Alabama, in the beautiful valley of the Tennessee River, surrounded by the low dark mountains of the Blue Ridge with many a bubbling brook, and tree-clad slope lies the City of Huntsville.

A mild and equable climate, abundant coal, iron and timber, cheap labor, and transportation facilities reaching to the markets of the world have marked Huntsville as an important manufacturing centre, and large amounts of capital have been invested there.

Lovely resorts are scattered over the hills near the city, and Monte Sano, beautiful and enchanting is known far and wide. Here come the people of the South looking for a rest from the heat of summer, and to escape the malaria-laden vapors of the coast. Here, too, flock the Northerners leaving behind the rigors of the wintry blast. And here in the balmy air, amid trees and flowers, and gushing springs, people from whatsoever part find an earthly paradise, peaceful, quiet, restful.

While visiting this part of Alabama some nine or ten years ago, Messrs. Chase Brothers of Rochester, New York, men of some forty years experience in the nursery business, were impressed with the limitless possibilities of the soil, and its adaptability especially for the growth of nursery stock. The smiling earth produced bountifully under a cultivation that was not worthy of the name; crops appeared as if by magic, and the thought came to them: What could not be done if method and system were infused into the work, and labor were intelligently directed under the eye of experts?

A beginning was made in the fall of 1889 by the purchase of a four hundred acre tract, one of the fine old plantations of former years. Ground was broken and planted, houses were erected, an office built, and the Alabama Nursery Company, with Lewis Chase, E. A. Chase, and William Pitkin of Rochester, N. Y., H. S. Chase, C. F. Chase, and H. B. Chase of Hickory, N. C., as directors was incorporated under the laws of Alabama.

The wisdom of the establishment of a great nursery here has been fully demonstrated. Location, soil, climatic conditions, and shipping facilities have all combined to work for its enduring success. And success has attended it from the very start. Ample capital, unsurpassed energy, wide experience, an untiring effort to hold, please and increase a large and growing list of customers could but have a successful issue.

The original four hundred acres have been put entirely into nursery, and large tracts of adjacent land have been taken up, improved and planted.

The first houses have been replaced by modern dwellings,

and a new office has been built with every convenience, and arranged with special reference to the prompt and accurate handling of a fine business.

Large packing sheds have been erected under which all stock is handled and packed, and a fine cold storage house is one of the noteworthy features. Cold storage in the nursery business is one of the recent growths and in everything of this nature, pertaining to the satisfactory handling of stock under any and all conditions, the Alabama Nursery Company is well in the lead.

A blacksmithing and general repair shop has been added, and a general store, containing everything from a long distance telephone to a bottle of delicious red strawberry soda water has become an indispensable adjunct.

From seventy-five to one hundred men and boys are constantly employed, and twenty as fine mules as one would wish to see "keep everlastingly at it" in the nursery.

Shipments are made in the late winter in car lots (annually amounting to some two hundred cars) to cold storage in St. Louis, Cincinnati, Philadelphia and Rochester, and nursery stock can thus be delivered to any part of the country, in the best condition, at the proper time, whether for the early spring of the southern states or the later and more backward spring, but spring nevertheless of the far North and great Northwest. Stock is shipped in this manner to every state and territory in the Union, with the possible exception of Alaska and Hawaii. Nor is Canada overlooked, or Mexico forgotten, as a goodly amount of annual sales will show.

The Alabama Nursery Company devotes its energies to the wholesale nursery business, growing a complete stock of deciduous fruit trees, figs, nuts, berries and ornamental plants. Its aim is to excel in quality, grading and packing, and "Chase's Alabama Grown" has come to be synonymous with "Standard Goods" in the nursery trade of the United States.

The present officers are: Mr. E. A. Chase of Riverside, California, president; Mr. H. S. Chase of Huntsville, Alabama, treasurer, and Mr. H. B. Chase of Huntsville, Alabama, secretary. Mr. Robert C. Chase is superintendent of the nurseries, and has charge of the propagating, growing and budding.

CEMETERY SUPERINTENDENTS.

The twelfth annual meeting of the American Association of Cemetery Superintendents was held in Omaha, Sept. 13th to 15th. Many eastern members did not attend because of the distance. Among the papers read were: "What Trees and Shrubs are Suitable for Cemetery Embellishment," B. Lawson, Wilkesbarre, Pa. "Why New Cemeteries Should Adopt the Lawn System," A. W. Hobert, Minneapolis.

The following officers were elected: President Arthur W. Hobert, Minneapolis; vice-president, William Stone, Lynn, Mass.; secretary and treasurer, Frank Eurich, Detroit.

STATE INSPECTION LAWS.

Fifteen States Have General or Special Regulations—Iowa, Kentucky, Maryland, Michigan, New Jersey and North Carolina Require That Certificates Be Attached to Imported Stock—Must File Certificates In N. Carolina and Michigan.

Following in brief are the provisions of the laws of the states regarding San Jose scale :

CALIFORNIA—Misdemeanor to offer for sale, gift or transportation any trees, shrubs or fruit infested with injurious insects or disease. All fruit trees must be inspected previous to April 1st each year, and infested stock treated or destroyed. (NATIONAL NURSERYMAN, Vol. IV, page 138.)

COLORADO—County inspectors of nursery and orchard trees may be appointed upon petition, subject to an examination as to their competency. Inter-county shipments of nursery stock must be inspected within forty-eight hours after arrival. The cost of inspection and treatment of stock must be borne by the owner or consignee. (NATIONAL NURSERYMAN, Vol. V, page 63.)

DELAWARE—The governor under the laws of 1897 appointed an inspector to inspect nurseries and orchards for the scale and to report January 1, 1898. New constitution provides for state board of agriculture to abate diseases and insect damage on trees. Inspection was made (NATIONAL NURSERYMAN, Vol. VI, page 12), but legislature of 1898 adjourned without providing for state board of agriculture. (NATIONAL NURSERYMAN, Vol. V, page 100; Vol. VI, pages 20, 80.)

GEORGIA—Inspection of nurseries, orchards and packing houses is to be made by a state entomologist. Stock infested is to be disinfected or destroyed. (NATIONAL NURSERYMAN, Vol. VI, page 24.)

IOWA—State entomologist examines orchards and nurseries between June 1st and September 15th each year. If trees and plants are free from scale a certificate at a cost of from \$5 to \$15 is furnished to accompany shipment of stock. Infested stock is to be destroyed at expense of owner. No nursery stock may be shipped into Iowa without a certificate of inspection by the state entomologist of the state from which shipment is made. Violation of the act is a misdemeanor. (NATIONAL NURSERYMAN, Vol. VI, page 46.)

KENTUCKY—All nursery stock must be inspected once each year and infested stock must be destroyed. No stock can be shipped without a certificate signed by shipper, stating that the whole of such stock has been examined by a state or government entomologist and found free from injurious insect or contagious disease. Failure to furnish such certificate, or furnishing a false certificate, renders the shipper liable to a fine of \$50 for each shipment. All state entomologist certificates are on file for public inspection. Every package of nursery stock shipped into Kentucky must be plainly labeled with the name of the consignor, consignee, contents and a health certificate. Failure in any of these provisions will result in the prompt return of stock to the shippers unless inspection at the consignee's expense is made at once.

MARYLAND—All stock sent out from Maryland nurseries must bear the certificate of the state entomologist. Nurserymen must pay the cost of treating or destroying stock. All stock subject to attacks of injurious insects and contagious diseases must be fumigated by nurserymen with hydrocyanic gas. Nursery stock shipped into Maryland must bear a certificate of inspection together with names of consignor and consignee. Transportation agents receiving stock without a certificate must notify the state officers under penalty of \$10 to \$100. Unless the stock without certificate is at once inspected, it shall be seized and burned. State officers must issue annual reports of inspecting. (NATIONAL NURSERYMAN, Vol. VI, page 46.)

MICHIGAN—A state inspector issues certificates on nursery stock free from injurious insects or contagious diseases. No stock can be shipped without such certificate. Infested stock must be destroyed at expense of owner. Certificates must accompany all nursery stock shipped into Michigan. Transportation companies are held responsible. All foreign nurseryman who sell stock in Michigan through agents are required to file with state board of agriculture a health certificate and

give bonds and obtain a licence (fee of \$5 for principal and \$1 for each agent annually); wholesalers are exempt from bond and license, but must affix certificate to packages shipped. (NATIONAL NURSERYMAN, Vol. V, pages 124, 138.)

NEW JERSEY—Certificates are required for shipment of nursery stock within the state. All nursery stock shipped into the state must bear a certificate of inspection bearing date within six months of shipment. Florists' stock exempted. (NATIONAL NURSERYMAN, Vol. V, page 46.)

NEW YORK—Certificates are issued by the commissioner of agriculture on nursery stock which upon inspection proves to be free from injurious insects or contagious diseases. Shipment of stock without such certificate is a misdemeanor. Infested stock is to be destroyed at the expense of the state, with no reimbursement for the value of the stock. A certificate of a federal inspector is accepted in lieu of that of a state inspector. All nursery stock shipped by freight, express or other transportation companies must be accompanied by a certificate attached to each car, box, bale or package. (NATIONAL NURSERYMAN, Vol. VI, page 51.)

NORTH CAROLINA—Transportation companies are debarred from forwarding nursery stock unless it bears a certificate of inspection with name and address of grower, dated within six months of shipment. Seeds, roots, herbaceous and strawberry plants are excepted. Stock that may have entered the state by oversight, not bearing certificate is to be sent out of the state, or if retained within the state is to be destroyed. Each package shipped into the state must bear the state commission certificate given upon the filing of a copy of the certificate of the state entomologist of the state from which shipment was made. (NATIONAL NURSERYMAN, Vol. V, page 123.)

OREGON—Provides an elaborate system of inspection. Every consignment of nursery stock subject to examination at high fees. A general law. (NATIONAL NURSERYMAN, Vol. III, page 82.)

PENNSYLVANIA—If presence of scale is suspected, a commission to inspect and destroy stock if necessary, is appointed by the township road supervisors. (NATIONAL NURSERYMAN, Vol. VI, page 7.)

VIRGINIA—The state entomologist is the state inspector of nursery stock and orchards. Infested stock must be treated or destroyed at the expense of the owner. A penalty of \$50 to \$100 is provided for the sale or transportation of stock infested with San Jose scale. (NATIONAL NURSERYMAN, Vol. IV, page 90.)

WASHINGTON—An elaborate system of inspection and disinfection of orchards and nursery stock under the direction of the horticultural commissioner. License fees for the sale of nursery stock and a bond of \$1,000. (NATIONAL NURSERYMAN, Vol. III, page 82; Vol. V, page 100.)

AMERICAN FORESTRY ASSOCIATION.

At the annual meeting of the American Forestry Association in Omaha, September 9th—10th ex-Governor R. W. Furnas presided and read a paper on the progress of forestry in Nebraska during the last 43 years. S. M. Emery, of Montana, presented the forestry subject in a clear light.

E. F. Stephens, Crete, Neb., read a valuable paper on "Tree Planting In Nebraska." Professor Lawrence Bruner presented a treatise on insects injurious to tree growth. In his paper Mr. Stephens said :

"The people of Nebraska have from the first settlement taken a marked interest in the planting of trees, groves, wind-breaks and shelter belts. Most of our people came from states which had more timber than we, and as they settled on these wide rolling prairies and broad tables, their first resolution was to surround themselves with orchards, trees and groves, that they might have the fruit of the one and the shelter of the others.

"A very great impetus was given to this feeling by the passage of the timber culture act. The attractive condition of non-residence, freedom from taxation for a period of 8 to 13 years, coupled with the requirement of ten acres of trees to be planted and cultivated, to acquire 160 acres, made this method a favorite with those who desired land of their own. Perhaps it would be of interest to mention that in the North Platte land district alone more than 11,000 tree claims were filed, and that reports from nine of the eleven districts in the state show that 28,474 timber claims were filed. Figuring that all of the timber claims have been planted once in the effort to secure trees,—and some of them have been replanted—on the legal basis of 27,000 trees per claim, we have the number of 568,898,000 trees planted. Doubtless during the years 1885—90 in which the largest number of trees were planted, there were single seasons when as many as 100,000,000 trees were planted. One nursery firm sold upwards of thirty million trees in one season and all nurseries had a large trade. One of the weak points of the timber culture law was in granting 160 acres of land simply for planting and cultivating the trees for a brief period of time.

"Plant strong yearling trees of suitable varieties the first spring after breaking. The land having been thoroughly pulverized by the use of discs, pulverizers and harrows, or all together, mark each way 4' x 4' as in ordinary marking for corn. With a little practice an expert workman attains dexterity and skill enough to plant 2700 trees, or one acre, in a day of ten hours. To a force of ten men there should be a boy to keep the plants wet and distribute them to each planter.

"Apparently successful groves should be cultivated until the spreading branches shut out all weed growth and conserve all the moisture for the direct use of the trees and the grove. When the trees get too large to stand at the distance of 4 x 4 judicious thinning is necessary. It has not, however, been found wise to trim off the lower branches of the trees and allow all the trees to remain. The lower branches are especially useful in shading down weed growth, in protecting the trunks of the trees, and in guarding against the conditions which favor borers.

"In the central counties of Nebraska the catalpa does well, grows rapidly, and makes valuable groves. The Russian mulberry also does well in the same counties. The writer cut a mulberry tree in Hamilton County that had made a diameter of ten inches in twelve years and was of a height of 25 feet. Because of its ability to withstand drouth, large numbers of mulberry have been planted as windbreaks and groves. I regret to state, however, that the mulberry and catalpa have not been as successful as we expected in the extreme western counties of the state and in Eastern Colorado. Perhaps the elevation has something to do with it, but apparently each tree grows too late in the fall and is caught with unripe wood and suffers from winter's cold. The ash proved to be the tree which could withstand the greatest amount of drouth and cold, and was most uniformly successful in securing a stand. In one contract of 750,000 trees we secured a stand of 98½ per cent. of the ash. The growth of the ash, however, is slow, and cultivation is required for a greater number of years than with a leafy tree like the box elder or catalpa. The black locust did fairly well as far out as Kimball County.

"In the planting of evergreens in the central counties of the state in a contract of 45,000 trees 80 per cent. were saved."

Among Growers and Dealers.

Aaron Miller, Milton, Oregon, has taken his son into partnership.

H. G. Bryant, of Princeton, Ill., spent a portion of the summer in South Dakota.

Myer & Son, Bridgeville, Del., have a large stock of trees and plants free from scale.

August Rhotert and wife returned on September 2d, from a ten weeks' trip in Europe.

William C. Barry, Rochester, N. Y., spent a portion of the summer in the Adirondacks.

H. S. Chase, treasurer of the Alabama Nursery Co., Huntsville, Ala., was in Rochester last month.

C. W. Grammage, London, Ont., is president of the Canadian Horticultural Association, recently formed.

R. M. David, Fort Lee, N. J., has secured the nursery stock of the Spring Lake Nursery, Englewood, N. J.

J. E. Killen, representing C. H. Joosten, New York city, called on Western New York nurserymen last month.

Those who fear the market is short on apple, cherry and apricots should try Brewer & Stannard, Ottawa, Kansas.

Parry's Pomona Nurseries, Parry, N. J., contain 10,000 each of Bismarck apples, grafted chestnuts and Japan walnuts.

Mr. and Mrs. Charles A. Green, Rochester, N. Y., celebrated the twenty-fifth anniversary of their marriage last month.

Special mention was made at the New York State Fair of the fruit exhibits of Ellwanger & Barry and S. D. Willard.

International horticultural exhibitions will be held in St. Petersburg next May and in Geneva, Switzerland, next June.

The oldest established nursery in Colorado is for sale on very liberal terms, according to announcement in another column.

Professor Mark V. Slingerland, of Cornell University, is State Entomologist of New York, in place of Dr. J. A. Lintner, deceased.

Professor John Craig, of Ottawa, Ont., later of Cornell University, has succeeded Professor J. L. Budd, at the Iowa Agricultural College, Ames, Ia.

J. H. Gage, Fairbury, Neb., offers all grades of apple seedlings, both straight and branched roots, forest tree seedlings of several kinds. They make root grafts to order in any style wanted.

Charles J. Brown, of Brown Brothers Co., Rochester, N. Y., visited Nova Scotia, Canada and Illinois during August and September. A post office has been established at Brown's Nurseries, Ont.

The Storrs & Harrison Company, Painesville, O., has added a range of twelve greenhouses, each 22 x 100 feet, at a cost of about \$10,000. The houses will be devoted mostly to the growing of young H. P. roses.

Barbier & Co., is the style of the firm which succeeded to Transon Brothers Nurseries, Orleans, France. They have nursery stocks of all kinds. Knauth, Nachod & Kuhne, New York city, are the American agents.

The United States crop report for September shows a percentage over 100 for apples in Wisconsin, Minnesota and Idaho. In Michigan the percentage is 58, Ohio 20, New York 33, Indiana 18, Illinois 27, Missouri 25.

NEW YORK SCALE LAW.

Serious Difficulty Arises Out of State Department Interpretation—Dealers Narrowly Escape Embargo on Their Business—Wholesalers Make Strong Efforts to Secure a Construction in Their Favor—The Correspondence.

Trouble developed early last month over the interpretation by C. A. Wieting, New York state commissioner of agriculture, of the law passed by the last legislature relating to the San Jose scale. The law became effective on June 1st. It provides that all nursery stock in the state should be inspected prior to September 1st. But as the territory could not be covered by that time the limit was extended.

When dealers who do not grow stock applied for the inspection of stock sent to their packing grounds, they were informed that Commissioner Wieting had ruled that only nursery stock in nursery rows could be inspected. As the law provides that no nursery stock can be shipped within the state or out of the state without a certificate and as the dealers could not get a certificate in their own names, the handicap on their business by reason of the new law was obvious.

MR. ROUSE'S APPEAL.

Irving Rouse, of Rochester, N. Y., who with secretary Pitkin, of the Eastern Nurserymen's Association, drafted the bill, was appealed to and he at once sent the following letter to Commissioner Wieting:

ROCHESTER, N. Y., Sept. 7th, 1898.

HON. C. A. WIETING,

Commissioner of Agriculture, Albany, N. Y.

DEAR SIR—My attention has been called to one feature of the San Jose Scale law passed last winter, which badly needs attention and at once. There are in this city as in other parts of the state, a large number of reputable resident dealers in nursery stock, men who employ in some cases a large number of agents, who take orders for nursery products. These orders are collated and the goods to properly fill them are bought, sometimes from as many as twenty-five different nurseries. They are delivered at the local dealers' packing yard, where they are assorted and put up and eventually shipped out. Many of these parties own no growing nursery stock. Under the law it is impossible for them to get a certificate. Without a certificate they are unable to reship the stock which they have bought, and which all comes to them under your certificate and is all inspected stock. In rare cases they may buy some stock from other states, but as a rule the freight charges preclude this, and the price of nursery stock in New York state usually runs as low as anywhere. Now, the question is, what can your department do for these men. Their stock has already been inspected, and they may be in the possession of a dozen or twenty certificates, in this effect, and yet having none of their own they are unable to forward the goods. Is it not possible for your department to authorize your inspector, when he is satisfied that the goods handled have been properly inspected, to issue a certificate to these parties, or can you not authorize these parties to send the goods out under a blank certificate, a certificate signed by you stating, that the stock covered by this certificate has been duly inspected, without these gentlemen's names appearing. Or possibly the goods could be reinspected and a certificate issued after the stock is delivered on the packing ground. At all events, something must be done, as the interests threatened are large.

As one of the gentlemen drafting the original bill, I can assure you that no such condition of affairs was contemplated, as we took it for granted that a grower's certificate would cover the stock anywhere. Kindly let me hear from you at your earliest convenience, and oblige.

Yours very truly,

IRVING ROUSE.

He received the following reply from Albany:

MR. IRVING ROUSE, Rochester, N. Y.

DEAR SIR—Your communication of the 7th inst. has just been laid before me. I thought last winter when you and your colleagues had completed your labors on the San Jose scale law, that you had anticipated all the possible contingencies that might arise. A great deal of labor was put upon the bill. It was drawn and re-drawn twelve or fourteen times in this office. It is a good illustration of the fact that you cannot anticipate all the conditions that may have to be met. The same complaint that you make has been made by a number of others and I have submitted the question to the attorney general's office and have been informed that I have no power conferred by the statute, to issue a certificate to persons who are dealers only, that is, in the sense that they are not growers of nursery stock.

What kind of a position would the Commissioner of Agriculture be in if he should issue a certificate to a dealer who had no nursery of his own, on the theory that the said dealer would only buy from the inspected nurseries, and who might buy stock unknowingly, as the case might be, from a nursery to which the Commissioner of Agriculture had refused to issue a certificate, or from a nursery suffering from the San Jose scale which we had not as yet got around to examine?

Very respectfully yours,

C. A. WIETING, Commissioner of Agriculture.

IN THE DEALERS' INTERESTS.

To a representative of the NATIONAL NURSERYMAN Mr. Rouse said: "The law is being interpreted by the commissioner of agriculture in a manner entirely different from that intended by its originators. The impression is prevailing among the dealers that the bill was drafted for the purpose of driving the dealers out of business. As one of the wholesalers and one who drafted the bill I wish to say emphatically, that no such object was in view. Had the federal bill, upon which the state bill was based, been passed, there would have been no trouble, for as I understand it, the ruling against the inspection of nursery stock on dealers' packing grounds is made because infested stock might be shipped into the state, and without the federal law New York state is not protected from infested stock from without the state.

"It is the spirit of the law that all nurserymen, wholesalers and dealers, wish to see enforced. That spirit is the prevention of the dissemination of the San Jose scale. No one has worked harder than have I in the effort to keep Western New York nursery stock free from the scale. And the scale cannot be found on any of the stock in this section of the state. If some plan for releasing all stock that has been duly inspected this fall can be devised, I am sure that the law will be amended by the next legislature so that there shall be no ambiguity."

"Would it not have been better to have allowed the state bill to die when it was seen that the federal bill could not be passed at the last session of congress?" was asked.

"It would, if we had known that the state law would be interpreted as it has been. But at the time the state bill was pending, we had no law to compel the destruction of stock infested with San Jose scale. This bill provided the remedy and it was therefore pushed to passage in the expectation that it would answer the purpose until the federal bill could become a law."

H. C. Peck, who is the inspector of nursery stock in seven counties in Western New York said: "I have made a careful inspection of the nursery stock in my territory and I find no San Jose scale. The dealers are greatly disturbed over the ruling of the department that stock shall be inspected but once and only in nursery rows. I would like to see all accommodated, but my duty is simply to follow the instructions of

the state department. I have called the attention of the department to the fact that several dealers have purchased abandoned nursery stock in nursery rows for the sole purpose of procuring a certificate. And the department has replied that it is not my business to make comments on the motives of nurserymen."

"It is understood, Mr. Peck, that dealers have procured certificates by representing that they owned certain portions of a block of trees in a nursery which had already been inspected."

"I am not supposed to know who owns a block of trees except as I am told," said Mr. Peck. "I will not issue a certificate on stock that I have already certified. The department says I must not comment on nurserymen's motives. All I can do is to inspect stock as I find it in nursery rows and in accordance with the ownership as stated to me."

President William C. Barry of the Eastern Nurserymen's Association when asked about the subject said: "We are doing all in our power to adjust the matter. The association has written to the commissioner of agriculture stating the facts and earnestly requesting that some arrangement be made for this fall's packing. We will amend the bill next winter."

"All who buy stock for reshipment are affected by the bill, are they not?" was asked.

"Certainly," replied Mr. Barry.

"Wholesalers as well as retailers?"

"Yes."

"Then the growers of nursery stock who purchase certain kinds to fill out orders cannot get the reinspection necessary for a certificate."

"No; they cannot."

EASTERN ASSOCIATION'S ACTION.

Following is a copy of the letter sent to Albany by the Eastern Nurserymen's Association:

ROCHESTER, N. Y., September 7, 1898.

HON. CHAS. A. WIETING,

Commissioner of Agriculture, Albany, N. Y.

DEAR SIR—Referring to the law passed last winter, Chapter 482, relative to the prevention of disease in fruit trees and the inspection of nurseries.

This Association wishes respectfully to place before you certain existing conditions under the law, and asks for relief. The conditions are these. Our understanding of the law is that nursery stock must be inspected where it is grown; that then certificates are issued to the owner thereof, and that no nursery stock can be shipped by freight, express or otherwise, unless accompanied by a copy of that certificate.

There are, among the members of this Association, a number of reputable individuals, firms and corporations, of good commercial standing, who have been for many years established in business. These parties are not growers of nursery stock, but might properly be termed brokers, buying their goods from responsible wholesale nurserymen. It is to their decided advantage to make their shipments under their own name, as they always have done, and in fact it would be impossible for them to do otherwise, as they are frequently obliged to buy from more than one wholesaler in order to procure the assortment of stock needed to fill their orders. These concerns run their own packing grounds, buying from the wholesalers but doing their own packing and shipping. They would of course buy only inspected stock, but under the strict reading of the law it is difficult to see where they can obtain certificates and how they can make their shipments.

There is also another class of dealers or brokers who are non-residents of the State of New York, but who come to this state twice a year to buy their goods from wholesale nurserymen, and who are in the habit of, and desire to make their shipments under their own names, and

it seems impossible for them to comply with the law if strictly interpreted. As the case now stands, it would be much easier for such parties to buy their goods from wholesale nurseryman located in other states, and it does not seem good policy for the State of New York to so legislate as to drive business to other states, but rather to legislate so that the business of this state will be encouraged, developed and increased.

This is the situation as it exists to-day, and the question is, what remedy can your department propose, so that reputable parties handling inspected stock, as brokers, may be able to make their shipment under their own name, accompanied by proper certificates?

Could not some plan be devised so that if a broker buys inspected stock from a number of wholesalers, he may receive some sort of a certificate which will enable him to make his shipments?

The matter seems urgent and important to many members of this Association, and as the shipping season begins early in October, any relief that may be proposed should be promptly offered, and I trust therefore, that you may be able to give the matter your early consideration.

Yours truly,

WM. PITKIN, Secretary Eastern Nurserymen's Association.

THE NATIONAL NURSERYMAN'S QUERY.

The NATIONAL NURSERYMAN sent the following letter to the commissioner:

HON. C. A. WIETING,

Commissioner of Agriculture, Albany, N. Y.

DEAR SIR—The NATIONAL NURSERYMAN, the only trade journal issued for the nurserymen of this country and Canada, is interested in the application of the state law relating to the inspection of nursery stock.

We have learned the ruling of the department regarding the inspection of nursery stock on the packing grounds of dealers who do not grow the stock. As we understand the ruling no stock can be inspected except in nursery rows. What steps then is the department taking to prevent the shipment of stock not inspected, (coming from another state, or from a portion of New York State not yet visited by the inspector) by the wholesalers, the growers of nursery stock, who are granted general certificates because they grow some stock and who can easily attach a duplicate of that certificate to the purchased stock by itself or mixed with the grower's own stock?

The department must be aware that every nurseryman, wholesaler and dealer, is obliged to buy some stock to complete the filling of his orders.

The dealer purchases all his stock, the wholesaler a portion of his stock. The wholesaler gets a certificate; the dealer does not.

Inasmuch as every nurseryman must buy some stock, and in nearly every case the purchased stock is mixed with that covered by your certificate, how can a single carload or even a single bundle of nursery stock leave a nursery in any part of this state this fall? Does not your interpretation of the law place the entire nursery business at a standstill?

Yours very truly,

The NATIONAL NURSERYMAN PUB'G. CO.

The reply was as follows, Mr. Flanders being the gentleman who assisted in redrafting the bill:

ALBANY, N. Y., Sept. 20, 1898.

THE NATIONAL NURSERYMAN PUBLISHING CO.,
Rochester, N. Y.

DEAR SIRS—Your communication of the 19th inst. just received. The commissioner of agriculture has not ruled that no stock should be examined except in the nursery. He has, however, received advice from the office of the attorney general that he could not, under this statute, Chap. 482, Laws of 1898, issue certificates upon stock examined elsewhere than in the nursery where grown.

I inclose you herewith a copy of the law. You will see that the duty of the commissioner of agriculture is to suppress the disease in ways provided by the statute wherever the disease may exist within

this state and to issue certificates under certain conditions therein provided.

The theory of the law is that a copy of the certificate issued to the grower shall accompany all stock grown in or shipped from the nursery which was examined, by virtue of which examination this certificate was issued. It would seem also a fair interpretation to us that if that was the intention of the law it was likewise the intention of the lawmakers that the person holding the certificate should not attach a copy thereof to stock grown in another nursery, be that nursery where it may. Should that be done and some of the stock bearing that certificate afterwards be found to be affected slightly or otherwise with the San Jose scale, how could this department ascertain the nursery where the stock was grown for the purpose of extirpating the same?

You will see by reading the law the general theory is that the copy of the certificate is really a tracer, by virtue of which this department may be able to find the source of the disease, if it exists within this state.

There is another question that may be fairly considered by you, viz: That the state only appropriates ten thousand dollars for this work and for this department to undertake to place an inspector or agent at the shipping point of each nursery in the State of New York to examine all the stock would require much more money than is at our disposal.

Any suggestions that you can make that will aid in making the work of more practical benefit under the law as it now exists, with the means at command, will be gratefully received at this office.

Very respectfully yours,

G. E. L. FLANDERS, Assistant Commissioner.

In response to an inquiry from this office, S. D. Willard who was one of those who urged the passage of the state bill, wrote:

GENEVA, N. Y., Sept. 20, 1898.

THE NATIONAL NURSERYMAN PUBLISHING CO.,
Rochester, N. Y.

GENTS—This matter was argued by myself in the interest of the dealers in the month of July at Albany, but no satisfaction obtained. I wrote to one large dealer urging prompt concerted action on their part but he seemed to know more than I did and thought there was no occasion for being in a hurry and so the matter has been permitted to drift, until now it is quite late.

I would suggest that a united effort be made to induce the commissioner to permit all dealers to have their stock inspected on their grounds before packing. He will be here to-morrow and I shall urge the matter with all the force I can.

Respectfully,

S. D. WILLARD.

Following is the final reply of Commissioner Wieting:

ROCHESTER, N. Y., Sept. 26, 1898.

MR. WM. PITKIN, Rochester, N. Y.

DEAR SIR—In reply to your communication of the 24th inst., just received, I am sorry to say that existing conditions are such that I cannot issue certificates to dealers as desired. I am ready and willing at any time to assist the nurserymen of this state to get legislation they desire in this matter. Of course, it should be such that the majority of the dealers will be satisfied with it. In the meantime I must act in accordance with the law as it now stands. I have referred the matter to the attorney general's office and I am informed that I cannot issue certificates except as provided in the statute, and that the statute only provides for issuing certificates to the owners of nurseries in which nursery stock is grown for sale, and which has been duly examined and found free from disease as provided by the statute. You will readily see that I am in a position to use only such authority as is provided by the statute. A little reflection will lead you to see that it will be impossible for me to use authority not conferred. That would be invoking the principle that I might do all things not prohibited by the statute, which would be absurd.

Very respectfully yours,

C. A. WIETING, Commissioner of Agriculture.

The Season's Fruits.

GREEN MOUNTAIN GRAPE—Vines of this variety produced full bunches of small, juicy, light green berries with thin skin, of delicate flavor. Ripened early, September 5th to 10th. Vines hardy and productive. Received from Stephen Hoyt's Sons, New Canaan, Conn.

WORDEN SECKEL PEAR.—Smiths & Powell Co., Syracuse, N. Y., sent us fine specimens of the Worden Seckel pear. The fruit is of medium size, pyriform shape, highly attractive color, bright red on one side, and of excellent quality. The trees are declared to be enormous bearers, bearing when very young. Trees three and four years old standing in nursery row bore this season.

STODDARD PLUM—For many years J. Wragg & Sons, Waukegan, Ia., have made a specialty of plums. In the variety Stoddard, of which they are the introducers, they have a fruit of great value. Specimens sent to this office last month fully bear out the high praise which has been accorded it. Its unusually large size for a native plum, its attractive light, pinkish-red color, its tough, sweet skin, juicy flesh and rich flavor combine to make it a most desirable variety. It is very productive and has proved perfectly hardy. M. J. Wragg says that it is not uncommon to get specimens of the fruit 6½ inches in circumference. It took first premium at Iowa state fair.

CAMPBELL'S EARLY GRAPE—When at first sight of a fruit persons manifest unusual interest and remark favorably upon its exceptional characteristics, a long step in its successful introduction may be noted. Such is certainly the case with Campbell's Early grape which has advanced rapidly in popular favor. George S. Josselyn, of Fredonia, N. Y., the introducer of the grape, in a communication to the NATIONAL NURSERYMAN, accompanying a basket of the fruit, says: "A rather amusing fact has occurred within a day or two concerning Campbell's Early grapes. We are now shipping them to other markets but it leaked out yesterday that some of our dealers here are afraid to ship them because in shipping them in mixed lots they would not be able to sell their Moore's Early, etc."

SEEDLING PEAR—Thomas W. Bowman, Rochester, N. Y., sent us a specimen of a pear from a seedling tree in Ontario. It was remarkably fine fruit in several respects. Its rich flavor, fine grain, juicy, sub-acid flesh, corresponded most appropriately to the attractive light yellow skin. Notwithstanding the dry, hot weather of the summer the pear was of good size and perfectly formed. Mr. Bowman says that a sample received last year was half as large again, which indicates that the fruit is large. The originator states that the tree has been free from blight or scale on either fruit or foliage, and that it is a thrifty grower and prolific bearer. It has withstood temperature as low as 35 degrees below zero. The tree is without a blemish. Judging by the sample sent we regard it as a most valuable variety. It is from a seed of Clapp's Favorite and it is believed that it will prove more profitable than Flemish Beauty. *Rural New Yorker* says: "The pear received is distinctly pyriform, 3½ inches from the stem to the calyx, of light green color, closely sprinkled with dots of a darker green. The flesh is white, very juicy, buttery, sub-acid, better in quality than Clapp's Favorite, and without seeds. It certainly seems worthy of introduction."



"De Cap says mus tie 'em tight."



"Alabama Grown."

DIRECTORS OF THE ALABAMA NURSERY COMPANY.

ETHAN R. CHASE.	LEWIS CHASE.	
HERBERT S. CHASE.	CHARLES F. CHASE.	HENRY B. CHASE.
ROBERT C. CHASE.	WILLIAM PITKIN.	

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Correspondence from all points and articles of interest to nurserymen and horticulturists are cordially solicited.

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Annual convention for 1899—At Chicago, Ill., June 7, 8.

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ROCHESTER, N. Y., OCTOBER, 1898.

SHOULD NURSERYMEN PAY ALL?

As will be seen by reference to the summary of the insect laws of the states, published in another column, all except New York state require the nurseryman not only to suffer the loss of infested stock, but also to pay the cost of destroying it. New York state pays the cost of destruction.

A prominent Western New York nurseryman last month expressed the opinion that even the New York law had not gone far enough in the nurseryman's behalf. He is of the opinion that the state should reimburse the nurseryman or orchardist at least to the extent of half the value of the nursery stock or orchard. The Canadian law makes such provision. It is argued that the destruction of the trees is in the interest of the public and that the nurseryman or orchardist should not be asked to suffer the entire loss, any more than is the breeder of cattle asked to suffer the total loss of his cows that are killed because they are suspected of being tuberculous; or the farmer is asked to suffer the total loss of his land that is needed for a

public improvement. Anything that adversely effects the orchardist's pocket book is a menace to the nursery trade. An orchardist, it is argued, will not be inclined to invest his money in nursery stock if he is liable to have his orchard destroyed because of pest or disease, without any reimbursement.

We would like to hear from our readers on this subject. If New Yorkers feel that their law is not just in this respect, certainly those of other states have reason to complain.

SHIPPING REGULATIONS.

A summary of the inspection laws of the states is presented in this issue. Nurseryman generally will be particularly interested just at this time in the provisions regarding the shipment of stock from one state to another.

It will be seen that Iowa, Kentucky, Maryland, Michigan, New Jersey and North Carolina require that stock shipped into those states must bear a certificate of inspection. In North Carolina and Michigan a copy of the certificate must be filed with the state board of agriculture. In North Carolina state certificates are exchanged for the copy of the certificate filed.

The Maryland and Kentucky laws require that the name of the shipper and the name of each customer must be affixed to the packages shipped into those states, together with the health certificate.

LIFE ZONES AND CROP ZONES.

A most interesting and valuable bulletin is that with the above title issued by the United States Department of Agriculture. The author is C. Hart Merriam, chief of the biological survey. In a general way nurserymen and fruit growers know what are probable limits of the areas in which certain fruits will grow. But it is largely a matter of experimentation.

Chief Merriam's report with its zone map and crop lists emphasizes the extreme wastefulness of indiscriminate and costly experimentation. For ten years the biological survey has had small parties in the field, traversing the public domain for the purpose of studying climatic and other conditions. It was early learned that North America is divisible into seven transcontinental belts or life zones and a much larger number of minor areas or faunas. The colored maps, prepared by the biological survey furnish, as Mr. Merriam says, the first rational basis the American farmer and fruit grower has ever had for the intelligent distribution of seeds and the only reliable guide he can find in ascertaining beforehand what crops and fruits are likely to prove successful on his own farm, wherever it may be located. These maps, in connection with the work of the entomologist, show also the belts along which noxious insects are likely to spread.

Space does not permit even a summary of the great amount of valuable information in this bulletin. The lists of fruits adapted to the several zones have been prepared under the supervision of Assistant United States Pomologist William A. Taylor whose indefatigable work both in the Division of Pomology and as secretary of the American Pomological Society has been noted repeatedly by all who are interested in fruit culture. He is high authority upon all the subjects he discusses. Nurserymen should procure copies of this bulletin. It is of especial interest to them.

Frederick W. Kelsey, of New York, views with alarm the question of expansion of American territory and gives his views in the New York *Tribune*.

The San Jose scale inspectors of New York state are: Charles Young, Ellenville; Harris P. Gould, Ithaca; George Gray Atwood, Geneva; H. C. Peck, Brighton.

Affleck Bros., Columbus, O., have added the five houses of the George W. Campbell estate at Delaware to their new establishment in Columbus, O., says the *American Florist*. The Campbell homestead is to be used as an art hall by the Ohio Wesleyan University.

The Western New York Horticultural Society, as usual, captured the prize of \$200 for the largest and best display of fruit at the New York State Fair. William C. Barry, of the firm of Ellwanger & Barry, Rochester, N. Y., is president of the society. The exhibit included 100 varieties of apples, 90 of pears, 50 of plums and 50 of grapes.

Cornelius Vanderbilt will bear the expense of an expedition to start next month to study the flora of Puerto Rico. A. A. Heller, an experienced collector, will conduct the expedition which is the plan of Dr. Nathaniel Lord Britton, one of the authors of that monumental work "The Illustrated Flora of the Northern United States," recently published by Charles Scribner's Sons.

An account of the trouble over the application of the New York State scale law in this issue indicates that the wholesalers are wholly in sympathy with the dealers. As an indication of the efforts to secure certificates for the dealers the communications to the state department are given. The subject is important from several points of view. The commissioner of agriculture finally decided that certificates can only be issued on nursery stock in nursery rows. Accordingly dealers secured title to growing nursery stock and received certificates.

"Fighting Joe Wheeler" lives near Huntsville, Alabama. He has represented that district in congress for the past nineteen years. Camp Wheeler, named in his honor, is located at Huntsville. Eight regiments are encamped there. The field to the right in picture number three of frontispiece of this issue is occupied by the 69th New York Infantry and the 5th Regular Cavalry. By the way, we understand they are going to send "Little Joe" back to congress this year by a unanimous vote. Democrats, Republicans, Populists, all feel it is an honor to be able to vote for such a man.

Obituary.

John Tinker, Clinton, Wis., died August 14th.

J. W. Smith, Hooksburg, O., died last month. Charles Coburn is administrator of the estate.

Philip Pfeiffer, of Sedalia, Mo., died August 28. He was born in Darmstadt, Germany, in 1835.

In Common Council.

Editor NATIONAL NURSERYMAN:

I send you in this mail a few blackberry twigs with fruit on them, in a small box. The bush came up in a garden where blackberry bushes were never known to have been planted, a number of years ago. The owner took care of it and it has developed into quite a curiosity from a blackberry standpoint. The fruit commences to ripen about the first of July and they are coming until frost kills them in the late fall. The fruit is first-class from first to last. Will you kindly ask some subscriber if he knows of such a berry?

Chestertown, Md., Sept. 20, 1898.

H. L. BOYD.

HARRISONS' IMPROVEMENTS.

Editor NATIONAL NURSERYMAN:

The demand for peach trees is promising—for spring delivery in the wholesale trade already a number of larger orders for spring, and the price of peach will go higher sure before January 1st as there is not a sufficient quantity in the country to supply the demand. For strictly first-class well-grown stock in favorite localities peach will go fast, and now that we fumigate all trees one is taking no risk of any insects.

We are now building two fumigating houses under the instructions of our entomologist, Professor W. G. Johnson, 14 x 16 feet each and propose to use a low down wagon and drive in without unloading, and fumigate; also, a packing house and office attached, 35 feet by 100 long, with a siding from the railroad, so our trees can be handled from fumigating house to the car with less handling which keeps the tree from being bruised, and saves expense.

Berlin, Md., September 22d. J. G. HARRISON & SONS.

In Nursery Rows.

PRUNING WOUNDS—Professor F. W. Card, of Nebraska, has found by experiment that common lead paint is the best application for wounds caused by pruning; grafting wax is more healing but does not last as long as the paint.

WATERING TREES AT TRANSPLANTING—*Meehan's Monthly* reports a case where trees recently set in orchard were adversely affected by a dry summer. It was not convenient to water them, but there was a vigorous pounding of the earth about the roots with a heavy paving rammer. The earth being very dry was reduced to powder by this process and moisture was drawn upwards by capillary attraction. In two days the trees had revived.

GASOLINE BLAST FOR SCALE—Among other remedies for killing scale insects, noted in a Michigan Agricultural College bulletin, is the gasoline blast. This appears to be a torch such as is used by plumbers. It burns gasoline and throws a broad sheet of flame directly on the tree. The plan is to pass this flame quickly over the body of the tree that is coated with scales. When used properly, it is said to kill the scale, and not seriously to injure the tree.

TENNESSEE NATURAL PEACH SEEDS—Replying to a correspondent Professor H. E. Van Deman says that Tennessee natural peach seeds are seeds from seedling trees grown by the less progressive growers of the mountain regions of Tennessee and adjacent sections. These seeds are usually very vigorous and healthy and are likely to produce vigorous seedlings because that region is very suitable to the peach. The fruit has been improved in size and quality to the detriment of the constitution of the tree and the vitality of the seeds. This is the chief argument in favor of the Tennessee natural peach seeds.

AT DANSVILLE, N. Y.

A compilation made during the latter part of September, of the orders for nursery stock filed with Dansville, N. Y., firms shows the following figures for fall sales:

Morey & Son, 200,000; J. D. Murphy, 150,000; Bryant Brothers, 100,000; C. W. McNair, 100,000; Jacob Uhl, 100,000; Martin King, 85,000; R. W. Kennedy, 80,000; Thos. Maloney & Sons, 80,000; Edward Bacon, 75,000; F. E. Williams Nursery Co., 75,000; Wm. H. Hartman, 70,000; F. M. Hartman, 60,000; F. J. McNeil, 60,000; J. H. Sheerin, 60,000; James P. Callahan, 60,000; Kelley Brothers, 40,000; J. M. Kennedy, 40,000; James O'Connor, 25,000; James Douds, 20,000; Total, 1,480,000.

It is stated that the George A. Sweet Nursery Co., and G. C. Store will dispose of about 150,000 trees.

"Prices rule low but they are a little stiffer than they have been in some seasons," says the Dansville *Express*. "Cherries are way up, but only a few growers have any on hand and there are not enough to supply the demand. Digging will begin soon and it is expected that the work will move along promptly, as the ground is soft from the repeated rains of the summer and the roots will loosen easily."

RUSSIAN APPLE NAMES.

Commissioners representing the states of Wisconsin, Minnesota, Iowa and South Dakota have been in session at La Crosse, Wis., for the purpose of revising the nomenclature of the list of standard Russian apples, of which nearly one thousand so-called varieties have been introduced in this territory.

Wisconsin was represented on this commission by Professor E. S. Goff, of the University of Wisconsin, an authority upon horticulture; A. J. Philips, secretary of the State Horticultural Society; and A. G. Tuttle, of Baraboo, whose eighty-three years sit lightly upon his shoulders.

Minnesota's members were Clarence Wedge, of Albert Lea, the president of the commission, who has done more for pomology on the prairie land of Southern Minnesota than any other man; Prof. S. B. Green, of the University of Minnesota, and J. S. Harris, of La Crescent, another veteran fruit grower and gardener who has been doing missionary work for apples for more than forty years.

Iowa's members were J. Sexton, of the agricultural college at Ames, who has been for the past twenty-three years the chief assistant of Professor J. L. Budd, the highest authority on Russian fruits; C. G. Patten, of Charles City, and J. B. Mitchell, of Cresco.

South Dakota was represented by Professor N. E. Hansen, of the agricultural college at Brookings, the distinguished young horticultural scientist who has been twice to Russia to study the hardy apple in its habitat.

The commission examined hundreds of specimen fruits and photographs and found the names sadly confused. After careful consideration the entire list was divided into fourteen groups, the Hibernial, Duchess, Longfield, Charlamoff, Repka, Christmas, Antonovka, Yellow Sweet, Cross, Romna, Transparent, Anis and Golden White.

The work of the commission will be accepted as authority in the four states represented and its findings will be of considerable importance to nurserymen. As a preamble to their report the gentlemen stated: "The varieties here grouped as members of the same family, while in a few cases differing somewhat in characteristics of tree, are so nearly identical in fruit that for exhibition and commercial purposes they are practically the same and should be so considered."—*American Florist*.

A VETERAN HORTICULTURIST.

How hard it is to quit an occupation that one has followed for fifty years says Judge Miller of Missouri. Last spring I set out about 1,500 little peach seedlings that are now more than two feet high and very stocky. I never had a finer lot. I intended to June bud, but did not get it done. One thousand of them will be budded with Elbertas and, if I am spared, they will be planted on a new piece of land 500 feet above the river, where peaches seldom fail. How is that for the intentions of one who will soon pass his 78th milestone on life's march?

M. J. Henry, Vancouver, B. C., writes: "Business has been better than ever this season with me. I have planted out nearly double my usual amount of grafts and cuttings."

J. H. Wallace, representing the Geo. Peters & Co. Nurseries of Troy, Ohio, is in town this week looking after their interests. He has purchased upwards of 200,000 plum, cherry and pear trees, and will remain here for a month or so to look after the shipment of the same. Mr. Wallace has been coming to Dansville for the past five years and has purchased 1,500,000 trees of our nurserymen—Dansville, N. Y. *Express*.

Recent Publications.

The *Canadian Horticulturist* publishes a full size picture of a section of the P. Barry pear, and states that it may prove to be the variety sought for export to Europe.

Recent bulletins of the U. S. Department of Agriculture include the following: "Peach Twig-borer," by C. L. Marlatt; "Trade of Puerto Rico," by Frank H. Hitchcock; "Flax Culture in Europe and America," by Charles Richard Dodge; "Experimental Tree Planting in the Plains," by Charles A. Keffer; "Grasses and Forage Plants of the Eastern Rocky Mountain Region," by Thomas A. Williams.

Number 1 of Volume X of the Experiment Station Record contains notes of interest to nurserymen regarding fruit growing in Wyoming. Varieties that have proved hardy and prolific in that state are cited. A comparison of eastern and western grown trees resulted in favor of the latter. The proceedings of the ninth annual meeting of the Association of Economic Entomologists are summarized. Efforts to exterminate the jack rabbit are cited.

A comprehensive report on the San Jose scale in Maryland has been issued by Professor W. G. Johnson, the State Entomologist. It contains 116 pages devoted to the following subjects: Sketch of the Late Professor C. V. Riley; Professor Johnson's Predecessor; Entomological Features of 1896 and 1897; Introduction and Distribution of the Scale. Nearly half the report is devoted to a discussion of remedies for the suppression and control of the pest.

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The National Nurseryman.

FOR GROWERS AND DEALERS IN NURSERY STOCK.

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VOL. VI.

ROCHESTER, N. Y., NOVEMBER, 1898.

No. 10.

THE SEASON'S TRADE.

Reports from all Quarters on Fall Sales—Marked Improvement over Autumn of 1897—Stock is being Cleaned up—Apple and Cherry Scarce—Prospect Bright for a Brisk Spring Trade—Apple Seedlings Short.

The following are special reports to the NATIONAL NURSERYMAN from all quarters regarding the fall sales and the prospects for the spring trade :

IN THE WEST.

OTTAWA, KAN., October 15.—Brewer & Stannard : “Our trade for fall delivery is considerably more than double what it was last year, and the outlook for spring is very encouraging. Prices are better, and we believe all the stock in the West will be used before spring packing is over.”

NORTH TOPEKA, KAN., October 15,—Peters & Skinner : We do comparatively little fall shipping, but the orders booked for fall and spring considerably exceed in value those booked up to this time last year. There is a lively inquiry for stock for late fall or early spring shipment and the stock of trees in this locality is considerably less than last year. Owing to the advance in the price of apple trees, apple seedlings are in great demand and are advancing in price. We feel quite sure that nearly all lines of stock will be closed out before the end of the season.”

SEDGWICK, KAN., October 15,—The Sedgwick Nursery : “Our fall sales are over double what they ever have been and the prospects for spring trade are very good.”

TOPEKA, KAN., October 16,—F. W. Watson & Co. : “We are right in the midst of fall sales. It is a little early to say just how heavy the trade will be. So far the orders are a little larger than usual, while the number runs about the same as last fall. Prices this fall in apple and cherry trees are good—better than for a good many years. Plums about the same price as last year. Pears lower than usual, altogether too low. Inquiry for spring is good—and we expect there will be a lively scramble for apple and cherry before spring packing season is over.

“The shortage of apple seedlings has made the price jump from \$3 per thousand to \$3.50 and some of the older heads are predicting \$4 to \$5 seedlings before the season is over. Orders for seedlings are coming in earlier and are much larger than last season. There are 335 acres of apple seedlings grown around Topeka, the entire product of which has been sold already, with the exception of about 60 acres. Prospects in the trade were never better.”

KANSAS CITY, MO., October 17,—R. H. Blair & Co.—“We have made no effort for fall sales. Most all our agents and dealers have been selling all season for spring delivery. We have booked heavy wholesale orders for spring. Our sales far exceed our expectations at this time and at much better prices than for the past five years. We think stock will be closed

out clean in the West next spring and at cost of growing at least. There will not be enough of apple and cherry to supply the demand at any price. The apple crop was a failure in the West, but other crops being good and prices satisfactory, we look for good sales of all kinds of nursery stock.

“Small nurseries have very little to offer and wholesale nurserymen are content to wait for better prices for the small amount of stock they have on hand for spring. The war is over with Spain, and even more satisfactory than we anticipated ; money is plenty, and as good as it ever was. But few nurserymen were affected by the calamity howl and they are convalescing and hope they will soon be happy and enjoy the better times with those who had faith.”

MARCUS, IOWA, Oct., 19,—M. E. Hinkley : “The tree trade is certainly on the up grade. Canvassers during the past summer, through the Central Northwest, have made larger sales by at least 25 per cent than in 1897. Observation and correspondence alike indicate a lively spring business, if the weather conditions prove favorable.”

GENEVA, NEB., Oct. 25,—Youngers & Co. : “With us business has been better this fall than since fall of 1892, in fact we have moved a greater quantity of stock but do not realize as good prices. Still prices as a whole are very satisfactory. We are still packing and shipping and expect to outdo any former season. Some lines of stock are already getting short in the West, principally cherry and apple, and we look for an advance in prices on those two articles for spring. Unless we are deceived there will be a decided shortage in No. 1 stock both of cherry and apple next spring.

“Apple seedlings are also a short crop with all the western growers and will rule higher later on.

“We believe there are better times in store for nurserymen (and we need it bad enough) for the next few years as the planting next spring must be below former years on account of the known shortage in stocks.”

GREELEY, COLO., Oct. 25,—The Greeley Nurseries : “We are in the middle of our fall deliveries, and so far they seem to be going off in good shape and the prospects are that collections will be fairly good. We cannot say with any certainty what the prospects are for spring business, as our salesmen have been selling through the past season for fall delivery only ; but if the fall business is anything to judge by, we shall have a good spring trade.”

IN THE EAST.

BRIDGEVILLE, DEL., October 14,—Myer & Son : “Fall sales are about the same as last season at this time with prospect for an increase in the shipping season. Stock has grown finely and is well matured. Prices on most lines are on an upward tendency and we think spring sales will be heavy with better prices.”

PLYMOUTH, MASS., Oct. 14.—T. R. Watson, Old Colony Nurseries : “I find the retail fall trade fairly good. Have not had as many wholesale orders as I expected. It is rather

early to say anything about spring trade. The prospect seems to me fair, as I have already filled more orders for spring delivery than ever before at this season."

SPRINGFIELD, N. J., Oct. 17.—Flemer & Felmlly: "We are doing our usual fall business in the retail department and think our trade orders will exceed those of a year ago by 25 per cent. We note a brisk demand for apple and cherry. Pear, plum and peach are moving slowly. We are looking for a brisk spring trade."

WEST CHESTER, PA., Oct. 17.—George Achelis: "In regard to this fall's trade, I would say that it opens out rather slowly, most likely on account of having too warm weather and no night frosts. Last night we had the first white frost. I believe that the sales will come up to those of last fall in number, but may amount to more in money, because apple trees are higher in price and in better demand. Cherries, too, command a better price and promise to be very scarce for next spring. I could not express any opinion in regard to the prospects for spring—it would only be guess-work."

BOSTON, Oct. 24.—Harlan P. Kelsey: "Fall sales are very satisfactory so far, and prospects are especially good for spring trade."

CENTRAL STATES.

PAINESVILLE, O., October 14.—The Storrs and Harrison Co.: "We have been having wet weather and are behind on digging and are too busy to tell much about aggregate business. We should judge, however, that orders for fall will foot up in the aggregate fully as much, if not more, than last fall, and some stock at better prices."

"We consider the prospect for next spring to be the best the nursery trade has had for a good many years, and believe before the close of spring that stock will be closer than it has been in this country for years. There is no reason why all kinds of stock should not bring an advanced price for next spring."

BRIDGEPORT, IND., October 14.—Albertson & Hobbs: "Our agents' sales for this fall are fully equal in amount to those of a year ago and made by about two-thirds the force, so we consider them better than we have had for some years and think more care has been taken in securing them. Inquiries at wholesale are very strong and it seems that the supply of stock is going to be used up very close. In fact there will be but little surplus for spring. Agents generally report bright prospects for spring trade while prices at wholesale have advanced very materially, especially on apple and cherry; and we miss our guess if there does not prove to be a shortage on other lines of stock before spring and if they do not command better prices than they have been. We are just commencing our packing. Season has been very warm and it is really too early to give an intelligent report."

SPAULDING, ILL., October 15.—Spaulding Nursery Co.: "Wholesale trade this fall is very good, considerably better than we expected, especially on standard pear. We feared our fine blocks of pears would go begging and that we would probably burn some next spring, but fall trade is playing havoc with our blocks, selling at fair to good market prices. Retail trade for fall is considerably larger than fall '97. Some buyers will not get all their wants supplied for spring 1899."

NORMAL, ILL., Oct. 20.—W. A. Watson & Co.: "Fall business is somewhat better than a year ago. Orders are larger

and prices on some items have improved. Pear and plum are very abundant and prices are very low, while cherry and apple have almost doubled in price since a year ago. We look for a very heavy spring trade."

GREENVILLE, O., Oct. 21.—E. M. Buechly: "We find ourselves at this date with a larger amount of business both wholesale and retail than for several years past and everything looks favorable for a brisk trade in the spring. We are nearly sold out of the Greenville apple already. Berry plants are uncommonly fine owing to favorable growing weather, and promise an enormous crop for 1899."

NEW CARLISLE, O., Oct. 21.—W. N. Scarff: "Our sales to date are equal to last year. Orders running strong on raspberries, currants, blackberry plants, black-cap tips and strawberry plants. The prospects for spring are certainly good as there is not 50 per cent of the small fruit stock in the country there was last fall. Owing to the advance in fruit trees; many dealers expect to work small fruits which will also help the demand."

IN THE SOUTH.

BALTIMORE, Oct. 15.—Franklin Davis Nursery Co.: "The season with us is very late and orders up to this time have not come in quite so freely as last year. However, there seems to be considerable inquiry and, in our judgment, there is a better tone to the market than a year ago. We expect our usual trade for spring."

BERLIN, MD., Oct. 13.—J. G. Harrison & Sons: "Our fall sales so far have been lighter than we have had them some seasons, but the demand is very strong, and, as we stated some time ago, there will be an increase in the price of peach trees before January 1st, as there is not a very heavy supply of peach in the country or in localities that are free from scale and other pests. We have had some parties write us saying they hoped the letter I wrote in the NATIONAL NURSERYMAN some time ago would come out true in regard to the increase of prices of trees. We have a fair reason to believe that we will get better prices before the first of April than we have sold stock for in several years."

RICHMOND, VA., Oct. 17.—W. T. Hood: "Our sales have been one-fourth less than last season for fall sales, and it has been much harder to sell in our territory. The weekly average of agents has been a quarter to a third less than in former years. I think that the low prices at which trees were sold and offered to the trade and large planters has had a great deal to do with the agents making small sales. We reduced the prices last spring on apple, standard pear and peaches, and we will have to handle nearly as many trees as we did last season, and we will not have much surplus to offer the trade for spring except in peaches. Our planting of this season has done well, especially of apple, which we think will make us a fine lot of trees for fall of '99. We do not do much for spring but sell our surplus to the trade, which we hope will be better than last year, as we had to burn last spring nearly 100,000 of peach, apple and pears. With us, if we do not dig apple at two years we have a large portion that is too large at three years and never hold over as four years."

MACCLENNY, FLA., Oct. 18.—C. M. Griffing, secretary and treasurer of the Griffing Brothers Co.: "It is rather early in the season to give a report on our fall trade, as we are just commencing to ship. Judging from the lively demand there

is for stock we feel confident that the season's business will be entirely satisfactory. Prices are ranging a little higher than for last season."

IN THE NORTH.

EVERGREEN, WIS., Oct. 17.—Evergreen Nursery Co.: "Our sales this fall are some larger than they were one year ago, and we expect to receive quite a good many orders yet. We have doubtless lost a little trade from the fact of its being generally known among nurserymen that Wisconsin has no San Jose scale law, and that we consequently have no official authorized to inspect nurseries and give certificates in accordance with their findings. We have overcome this largely by having our nursery inspected by the state entomologist of Iowa, who has given us a clean certificate, and the same has been accepted by all the states having laws requiring certificates of inspection to accompany all shipments of nursery stock into the state, to whom we have applied to have our stock admitted. Wisconsin will have a law of its own next winter in order to protect its own nurserymen, even if for no other reason.

"We are receiving rather more inquiries for stock for next spring trade than usual at this season, and have fully as many orders booked for spring. All we want now is a general strengthening of prices to make the business what it used to be."

KALAMAZOO, MICH., Oct. 14.—L. G. Bragg & Co.: "There is a lively demand for stock, more so than for the past four or five years. Apples and cherries are short and bring living prices once more. Pears and plums, we believe, will do better next spring after the large surplus has been reduced somewhat. Our retail department has more than doubled sales of a year ago. We do not think our increase in sales and better prices is brought about by our gold standard money by any means."

TORONTO, Oct. 15.—Stone & Wellington: "Our business for fall is considerably larger than for the past three years, while the amount already sold for spring is also far, far ahead of previous years.

"No large plantings are being made, but the general run of nursery stock in small lots is selling well and we look for a splendid season."

WESTERN NEW YORK.

ROCHESTER, N. Y., Oct. 12.—Glen Brothers Co.: "We are more than pleased not only with the fall trade but with the outlook for spring. Our fall shipment is just about double that of last fall."

ROCHESTER, N. Y., Oct. 14.—Chase Brothers Co.: "We are glad to say that our fall sales so far are considerably ahead of last season, and we shall pack this fall fully 25 per cent. more than we did in the fall of 1897.

"It is yet a little early to prophesy on spring trade, but indications are favorable, and sales for spring delivery up to date are running considerably ahead of last year. The prospects look good for a large winter's business."

ROCHESTER, N. Y., Oct. 26.—Brown Brothers Co.: "Business has been very good all summer and we feel confident that the prospects are brighter in this line and in business in general and that the farmer is feeling more hopeful."

CAYUGA, N. Y., Oct. 14.—Wiley & Co.: "Fall sales a little beyond the average with advance in prices, which, I assure

you, is very encouraging. We anticipate a heavy movement of stock for spring of '99."

FREDONIA, N. Y., Oct. 14.—George S. Josselyn: "Fall trade thus far has been very encouraging with us. Up to date we have shipped about three times as much stock as we ever did before in the fall to similar date. In grape vines it seems to be a fact that there is not only an increased demand, but there is a decrease in the production of really first-class vines, and what is best of all we are getting fair prices, something that has not occurred before in several years.

"At Omaha convention a rather peculiar state of affairs existed. Many of the buyers there wanted higher prices. Their wishes have been gratified, which has been the means of 'making others happy.'"

NORTH COLLINS, N. Y., Oct. 15.—Eugene Willett & Son: "The grape vine market has been in better shape than for several past seasons. Prices on two-year stock have ruled strong, and our judgment is that the leading varieties will be very scarce in the spring. We do not think there have been many more bought than usual, but the extreme low price for the past two or three years has caused those who plant a few with general nursery stock to abandon growing them, and the whole supply had to be bought of those who make vines a specialty."

GENEVA, N. Y., Oct. 13.—E. Smith & Sons: "The sales for nursery stock for fall will be about the same as last season; although the prices have advanced on some lines, especially the apples, and sour cherries, other stock remaining about the same.

"Orders for spring are coming in better than last season, and from present indications the spring sales will be better than last year."

GENEVA, N. Y., Oct. 13.—W. & T. Smith Co.: "Our fall sales this year have been very satisfactory. There has been a considerable advance in prices, on cherries and apples especially, and stock is well cleaned up in this locality. From present prospects, there will be a very large spring trade."

GENEVA, N. Y., Oct. 15.—Sears, Henry & Co.: "We are having more trade than we expected from west of the Mississippi river and in the southern states. The only item that runs slow is standard pears, but even they in some varieties are going off quite freely. We are looking for a large spring business on most lines of stock."

DANVILLE, N. Y., Oct. 20.—James M. Kennedy: "I can see a marked improvement in this fall's business over that of the autumn of 1897, in better prices and larger sales. The weather has been most favorable for digging and shipping. Large early fall shipments have already been forwarded with good prospects when the season closes of making a marked improvement over last year. On some varieties of plum and standard pear the prices are about as last year, but on other varieties the prices have advanced; also on cherry and apple, which goes to show a marked improvement in prices. Very little if any stock will be carried over after the spring trade.

"It is safe to say that both the wholesale and retail trade is ahead of last year. The wholesale trade which has been suffering from a bad and prolonged case of over production will see better prices in the future owing to the plantings being shortened the last few years. Large orders for fall 1899 have already been booked at prices much better than this fall. The

usual amount of stock will be planted next spring owing to the fact that the nursery business is now on the road to prosperity."

AMERICAN INSTITUTE FAIR.

The sixty-seventh fair of the American Institute was held at the Academy of Design, New York city, September 26th to October 8th. Dr. F. M. Hexamer is chairman of the committee on horticulture. P. J. Berckmans pronounced the collection of 43 plates of hot-house grown apples, pears and plums of W. Rockefeller as wonderful. The cost he said must have been \$10 per fruit. Ellwanger & Barry had a large and valuable exhibit; as also did William Parry.

THE APPLE CROP.

The apple crop of the United States is smaller than it has been since reliable statistics of this crop have been collected, says the American Agriculturist. The failure is widespread, reaching from the Pacific coast to Maine. In none of the states does the output of fruit approach an average, and in only a very few does the yield exceed 50 per cent of the crop of 1896, which may be considered a full one, amounting to a total of 70,000,000 barrels of commercial quality, exclusive of cider stock. The total supply from the 1898 crop of the U. S. will not reach 30,000,000 barrels compared to something over 40,000,000 barrels last year. Much inferior stock, that usually would go into cider, will this season figure in the commercial supply. The distribution of the crop this year is rather peculiar. In the great apple states of the West, like Missouri and Illinois, the crop is almost an absolute failure, being only about 500,000 barrels in each state. Indiana is in like condition, and Kansas and Nebraska have almost no winter fruit. On the Pacific coast there is some fruit, but this cuts little figure in the commercial trade. Iowa's crop is very short as a whole, though good in some unimportant localities. Wisconsin has a fair crop, but no surplus. The crop in Ohio is poor and unevenly distributed, the northeast counties having the best apples. Missouri will have to ship in apples for home use, and dealers are now trying to find out where to get them. Michigan probably is the most available source and the supply will be secured from there. The same is true of Illinois, as this state has absolutely no winter fruit outside of a few favored localities in the northern section and in the central districts.

The common explanation of the failure is that during the blooming season there was excessive rainfall, which washed out the pollen and prevented proper fertilization by insects, while a cold wave added to the injury. Then the moist humid weather during the season was very favorable to the development of fungous diseases, which accounts in a measure for the exceedingly poor quality of the fruit in the middle and western states, especially the appearance of knots and blighted spots. Possibly also the fact that an immense crop was secured in '96 and a big one was due this year caused many people to neglect spraying and a proper culture of their orchards.

The foreign crop is also short.

Honest advertising creates confidence and confidence creates business.

Push, enlarge, expand. There is no Monroe doctrine in business.

TREE PLANTING IN NEW YORK.

The following advertisement appeared in the New York Tribune last month:

The Tree Planting Association of New York will furnish, free of charge, full information as to the most suitable trees for city growth, with list of nurserymen, and the charges of each for the completed work (including iron tree-protectors), also printed blank forms for orders to nurserymen, on application by mail only to its office, Nos. 64 and 66 White street, New York city. Orders should be placed now to secure the best results.

In Nursery Rows.

PREPARING NURSERY ROWS—Thomas H. Douglas, Illinois, in June broke three acres of meadow for nursery ground, turning under grass 14 inches in height. The piece was sowed to buckwheat on July 15th, and this was plowed under September 16th. When the buckwheat was rotted a sub-soil plow was used. Much rain aided the work.

CHERRY BLIGHT—Professor Bailey, who has just returned from an extended European trip, calls attention to a disease in Belgium cherry orchards which externally and microscopically resembles pear blight. Sweet and sour varieties are attacked, and the whole tree is killed in a single season. Professor Bailey thinks the disease may appear in the United States, as it can easily be transmitted through scions, stocks and bud sticks.

SLITTING BARK OF FRUIT TREES—Professor J. L. Budd, Ames, Ia., says in Rural New Yorker that, under certain conditions, it is beneficial to slit the outer bark on the stems of cherry and plum trees. This, he says, is to prevent injury from "tight lacing." Slitting the bark of pear or apple trees cannot possibly have anything to do with blight. Washing the stems and the main branches with a solution of lime, sulphur and water, will lessen blight, as it lowers the temperature and is not favorable to bacteria. It must be understood that slitting the bark would invite bacterial attacks rather than tend to prevent them.

WHERE TO CALIPER—W. A. Watson & Co., Normal, Ill., ask: "At what point of the tree is it usual to caliper when giving grades? Some here contend measurement should be taken four inches above the collar, others say right at the collar." It would seem that the nursery tree at the collar could not be generally regarded as the proper measurement. The general average diameter is what is intended to be conveyed by a caliper measurement. This can only be obtained by measuring above the collar. So excellent an authority as Professor L. H. Bailey says on this point, "Nurserymen express the size of a tree by its diameter about three inches above the bud." A prominent Rochester nurseryman says the measurement should be taken just above the collar.

GRADING NURSERY STOCK—J. H. Black & Son, Hightstown, N. J., answering a query in Rural New Yorker, say: Peaches should never be older than one year from the bud. Sizes of extra first-class should be 4½ to 6 feet, 9-16-inch caliper and up. First-class should be 4 to 5 feet, ½ to 9-16-inch caliper. Medium grade should be 3 to 4 feet, ¾ to 1-inch caliper. Second-class should be 2 to 3 feet, stocky and should have some branches. Pears, European plums, apples and sweet cherries should never be three-year-olds, and are, in the case of Kieffer and Le Conte pears and sweet cherries generally two year-olds. Sizes, extra first-class, should be 5½ to 7 feet, ¾-inch caliper and larger. First-class should be 5 to 6 feet, ⅝ to ¾-inch caliper. Second-class should be 4 to 5 feet, ½ to ⅝-inch caliper. Japan plums should be graded the same way, but should never be over two-year-olds, and one-year-olds well branched are preferable. Sour and Duke cherries should caliper the same, but run about one foot shorter, as a rule. Apricots and quinces are graded similar to peaches, but are two-year-olds instead of one year. Quinces are not so tall, but more branched. These are the standard grades, and should run between the two extremes. If none run over the lowest limit, they are graded too close.

POMOLOGICAL NOMENCLATURE.

A Set of Rules Proposed by Prominent Horticulturists—Present Rules are Inadequate—Simple Names Advised—Forms of Names—Formal Citation—Priority—Suggestions as to What Constitutes Publication of a New Name.

There has been a good deal of discussion of pomological nomenclature lately, and as a result the Horticulturists' Lazy Club, of Cornell University, has been trying to formulate a new set of rules adapted to present needs. These rules are published for general discussion, and in the hope that something of the kind may be adopted by the American Pomological Society, the American Association of Nurserymen and the various state and district organizations.

Following are the rules suggested :

FORM OF NAMES.

1. The names of a variety of fruit shall consist of one word, or at most of two words.

(a) In selecting names, simplicity, distinctiveness and convenience are of paramount importance. Pitmaston Green Gage and Louise Bonne de Jersey are neither simple nor convenient. Gold, Golden, Golden Drop, Golden Beauty and Golden Prune, all given to different varieties of plums are not distinctive.

(b) The use of such general terms as seedling, hybrid, pippin, buerre, damson, etc., is not admissible.

(c) Nouns must not be used in the possessive form. McIntosh's Red, Crawford's Early, Bubach's No. 5, must be written McIntosh Red, Crawford Early and Bubach.

The name of no living horticulturist should be applied to a variety without his consent.

(d) Numbers are to be considered only as temporary expedients, to be used while the variety is under trial.

(e) An author publishing a new variety should use the name given by the originator, or by the introducer, or else should choose the oldest discoverable local name, providing such name may be conformed to these rules without loss of identity.

2. In the full and formal citation of a variety name, the name of the author who first published it shall also be given.

(a) Names would then take such forms as the following : Summer Queen, Coxe or Sophie (J. W. Kerr, Cat. 1894); or America, Burbank, *New Creations*, 1898, p. 5.

(b) It is expected that such citations of names will be used only in elaborate works on pomology, in scientific publications, or in cases where they are necessary for clear discrimination of synonyms.

PRIORITY.

3. No two varieties in the same group shall have the same name, and the name first published for a variety must always be used to designate it. All names subsequently published must stand as synonyms.

(a) The term "group" as here used shall be held to designate the large general groups specified by words in common language, such as raspberry, plum, apricot.

PUBLICATION.

4. Publication consists in the public distribution of a printed name and description, the latter giving distinguishing characters of fruit, tree, etc., or in the publication of a new name for a variety properly described elsewhere.

(a) Such a publication may be made in any book, bulletin, report, trade catalogue or periodical, providing the issue bears the date of its publication, and is generally distributed among nurserymen, fruit growers and horticulturists.

REVISION.

5. No one is authorized to change a name for any reason except when it conflicts with these rules.

COMMERCIAL APPLE GRAFTING.

Two-year-old roots are not used for grafting if one-year-old roots can be obtained, says E. D. Smith, of Kansas, in *American Agriculturist*. At lifting time all apple seedling roots are assorted into three lots. No. 1 contains all roots 16 in long and 3-16 in diameter at collar. No. 2 all broken roots and less than 3-16 in diameter that will make one graft. No. 3 all refuse roots. No. 1 will make more grafts per 1000 roots than No. 2, but the last will grow a larger per cent of those planted for there will be more collar grafts in those made from No. 2 than No. 1 as root and scion will unite better at collar than below. Double worked trees are hardier than simple root grafts. That is, hardy tree roots grafted and top-worked, as for instance Duchess, root-grafted in the ordinary manner and then used for a stock upon which to graft a tender variety, as Maiden Blush. Simple top-working a seedling will not increase hardiness, for only comparatively few seedlings are hardy. Scions should be put away full length as cut from the tree, for there is less liability to become dry. When ready to graft, cut with slope and tongue ready to fit together, from 100 to 300 scions; cut them 5 to 6 in. in length and throw out on the table. Trim all side roots from a root; cut slope and tongue at collar; select a scion as near as possible the same size as the root, crowd them together closely and cut off the root 2 in. in length. Repeat till the root is used up. For tying use No. 16 tidy cotton; drop a ball into hot grafting wax. A long scion and short root is best, for then the joint is well below ground and the scion will throw out more roots. North of 40th parallel 75 per cent of the seedlings will winter-kill the first winter, hence the necessity of having the scion rooted.

ENGLISH NURSERYMEN'S TROUBLES.

The lateness of the present season, and the extraordinary drought, is causing the fruit tree nurserymen no small amount of trouble, says the *Gardeners' Chronicle*, London, under date of October 15th. Tree planters occasionally favour the methods of the ancient gardeners, and desire to plant their trees upon or before a certain date. The trouble such customers may cause nurserymen this season may be gathered from the following letter which we have received from one of the largest growers in the trade :—

According to the calendar, we should now be hard at work executing orders for roses, gooseberries, currants, trees, and conifers, and even lifting some few pear and plum trees. But, alas! the land below the surface crumb is as dry as a brick, making all this work impossible; and meantime we are bombarded with letters such as—"I am told that now is the very best time for removing the things I ordered;" "If you are unable to supply what I ordered, you should have said so at the time;" "Unless my order is forthwith executed, please consider it cancelled, that I may be better served elsewhere." Well, what for a remedy? Why, patience. Practically, the season is three weeks late, and as no fibrous roots can be got out of the hard soil, my kind friends, trust to your nurseryman to do his very best. Apples are yet in full growth, and practically a week's heavy rain is wanted before lifting can be started. I send these few lines on behalf of myself and fellow nurserymen, as we, I feel sure, are only too anxious to do our best, and are not responsible when the clerk of the weather and the calendar do not agree.

The letter is from George Bunyard, of the Royal Nurseries, Maidstone, England.

The National Nurseryman.

C. L. YATES, Proprietor.

RALPH T. OLCOTT, Editor.

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 Drafts on New York or postal orders, instead of checks, are requested.

Correspondence from all points and articles of interest to nurserymen and horticulturists are cordially solicited.

AMERICAN ASSOCIATION OF NURSEYMEN.

President, A. L. Brooke, N. Topeka, Kan.; vice-president, E. Albertson, Bridgeport, Ind.; secretary, George C. Seager, Rochester, N. Y.; treasurer, C. L. Yates, Rochester, N. Y.

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Annual convention for 1899—At Chicago, Ill., June 7, 8.

Entered in the Post Office at Rochester, as second-class matter.

ROCHESTER, N. Y., NOVEMBER, 1898.

THE SEASON'S TRADE.

Special reports to the NATIONAL NURSERYMAN from all sections of the country plainly indicate a marked improvement in trade conditions. Last spring it was noted that there had been an increase in orders but prices remained generally low. It was prophesied that the effect of the turn of the tide would be felt in the matter of prices this fall and the reports in this issue indicate the fulfillment. Prices on apple and cherry trees and apple seedlings advanced steadily as the stock was cleaned up, especially in the West. It is expected that the surplus of pears and plums will be reduced considerably by spring. The Storrs & Harrison Company and Albertson & Hobbs say there is no reason why all kinds of nursery stock should not bring an advanced price for next spring. The Spaulding Nursery Company believes some buyers will not get all their wants supplied for spring. Others express the same opinion. The grape vine market is in better condition than for several seasons.

The improved conditions have come slowly and therefore should be continuous. All in the trade are anxious to promote them in every way possible and to guard against any action which might prove adverse.

A NURSERY CONTRACT.

Eight years ago, says a Nazareth, Pa., paper, a western nurseryman was awarded a contract to set out a large number of trees along the streets of Garden City, Kas., upon the understanding that he was to be paid for such of them as might be found to be growing and thrifty at the end of two years. The two years rolled around and the contractor called for an inspection and counting of the saplings. Under advice of the city attorney the municipal authorities refused either to conduct the inspection or to pay for the trees, claiming that the whole contract was illegal.

The nurseryman carried his case to court, and has just been awarded a verdict for \$33,133, representing the contract price of every tree which on his own testimony was in good condition at the stipulated time.

NEW SYSTEM OF NOMENCLATURE.

Readers of this journal have been informed from time to time of the discussion of the necessity for a new system of nomenclature. Prominent horticulturists have been endeavoring to devise rules which will meet the conditions and simplify the present indiscriminate manner of naming fruits.

Chief among those who have been interested in this subject are Assistant Pomologist William A. Taylor of the United States Department of Agriculture, who is secretary of the American Pomological Society; Professor F. A. Waugh, of Vermont; Professor L. H. Bailey, of Cornell University, and Professor H. E. Van Deman, the former chief of the division of pomology in the United States Department of Agriculture. In another column of this issue are the rules proposed at a recent meeting of the Horticulturists' Lazy Club, of Cornell University. Professor Waugh, a member of the club, sent us a copy of the rules. He led the discussion by the members of the club.

The American Pomological Society has adopted rules; but they have not been enforced, because it has been felt that they are inadequate and that they were made for a special society. It is held that there should be the same freedom in pomological as in botanical nomenclature where the discoverer of a new species or type has a right to name, describe and publish it himself.

The following plan has been suggested as a means for securing rules having national recognition: A set of rules to be formulated by a number of horticulturists and published in the horticultural journals; discussion to be invited. Some prominent body of horticulturists will probably adopt the rules after they have been discussed and possibly amended. Other societies will take similar action and gradually they will come to have national recognition.

This is a subject in which nurserymen ought to be much interested. Uniformity in the naming of varieties would facilitate business in many ways. It is to be hoped that the American Association of Nurserymen will aid in the work of establishing a uniform system.

NURSERY STOCK INTERCEPTED.

The Baltimore American of October 27th says: "State Entomologist W. G. Johnson intercepted two lots of fruit trees in this city on Tuesday. They were from C. W. Stuart & Co., a New York nursery firm; and were consigned to B. F. Spedden; of Cambridge, and T. J. Seward, of Cornersville.

"They were shipped into this state," said Professor Johnson yesterday, "in violation of our law requiring a certificate of inspection to be attached to each and every package, showing that it is apparently free from dangerously injurious insects, and plant disease. The General Agent of the United States Express Company in Baltimore was notified of this shipment of nursery stock, and the trees are now held in Cambridge, and cannot be delivered under a penalty of not less than \$10, nor more than \$100 for each package. Unless the nursery firm shipping the stock can furnish us a satisfactory certificate the trees will be returned at the owners' expense or burned.

"We are also holding another consignment of stock at Hills Point, in Dorchester county. It is our purpose strictly to enforce this section of our law, and nurserymen have been duly warned. If they ship uncertified trees into this state they must abide by the consequences. Our own nurserymen have submitted their premises to rigid inspection, and all of them have erected fumigating houses, as an additional protection against insects of a dangerous nature, in accordance with our law.

"We have sent posters to all postoffices and railroad offices, calling the attention of agents of transportation companies to that portion of our law covering nursery stock coming from other states. Any agent or person delivering stock not properly certified lays himself liable to a fine of \$100 for every package delivered."

Professor Johnson writes under the same date to the NATIONAL NURSERYMAN: "This stock was released to-day, Messrs. Stuart & Co. having satisfied this office that it was all right and filed certificate of inspection."

A FIRST-CLASS TREE.

The article entitled, "What is a First-class Tree?" published on page 91 of the current volume of the NATIONAL NURSERYMAN, has been widely copied, our comment being included with Professor Bailey's statement, without credit. Inasmuch as such general interest in the subject has been manifested we quote again from Professor Bailey:

"Common opinion demands that a tree, to be first-class, must be perfectly straight and comely. This arbitrary standard is but the expression of the general demand for large and handsome trees. But there are some varieties of fruit trees which cannot be made to grow in a comely fashion, and hence there is always a tendency to discontinue growing them, notwithstanding the fact that they may possess great intrinsic merit. All this is to be deplored.

"The requirements of a first-class tree should be that the specimen is vigorous, free from disease and blemishes, and that it possess the characteristics of the variety. This allows a crooked tree to be first-class if it is a Greening or Red Canada apple, because it is the nature of these varieties to grow crooked. A crooked or wayward grower is not necessa-

rily a weak one. It is advisable to top-work weak-growing varieties upon strong-growing and straight-growing ones.

"A first-class tree is well-grown; that is, the various operations to which it has been subjected by the nurseryman have been properly performed. It must be mature—that is, not stripped of its leaves before the foliage has thoroughly ripened. It must be of the proper age for planting. It must have a clean, smooth bark. It must have a stocky, strong trunk, good roots, and be free of borers and other insect injuries. The union—at the bud or graft—must be completely healed over. Stocky and rather short trees, with well-branched heads, are always preferable to very tall ones. Very slender trees, if above one or two years old, should be avoided. Nurserymen express the size of a tree by its diameter about three inches above the bud. The measuring is usually done by a caliper. The diameter of a first-class tree varies with the method of growing and trimming it. In the New York nurseries, a first-class two-year-old apple tree (budded) should caliper five-eighths to three-fourths of an inch. Plums run about the same. Pears will generally run a sixteenth of an inch less, and sour cherries about a sixteenth more. Sweet cherries will run three-quarters inch and above."

AT PAINESVILLE, OHIO.

The Storrs & Harrison Company, Painesville, O., has completed a range of twelve new greenhouses, eight 22 x 100 feet, and four 11 x 100 feet, a total of 26,000 feet of glass. The sash material is entirely of cypress lumber. Two of the 22-foot houses have ground benches and are to be used exclusively for azaleas. The other houses are fitted up with raised benches, one-inch pipe being used for frame and standards—a specially designed tile bottom affording sufficient drainage—altogether a most durable and complete bench. The last mentioned houses will be used for general greenhouse stock—carnations, roses, geraniums, palms, etc.

Although the San Jose scale has existed in New Jersey for ten years the damage sustained is comparatively slight and local. "Practically none save peach trees have been actually killed," says Dr. J. B. Smith, the state entomologist, "and no single fruit grower has sustained serious injury."

"The reliable nurseryman can tell a good tree better than any amateur alive," says the Rural New Yorker, "and he is bound by every law of self-interest to furnish the best trees he knows how to his customers. We would rather trust the judgment of a good nurseryman than to trust our own. This is a very simple rule then: Deal with a good nurseryman. The next question, of course, is: Where does he live?"

Inasmuch as attention has lately been called to Japan as the probable source of the San Jose scale and other injurious insects, it is of interest to note that great advancement is being made in the work of the experiment stations in the island empire of the Pacific. There is a central station at Tokyo and there are six branch stations, at all of which plant diseases and injurious insects are studied, plants and seeds are distributed, farmers' meetings are addressed, questions answered and reports published.

In Common Council.

Editor NATIONAL NURSERYMAN :

Our state law does not require the filing of certificates with the state entomologist, but in order to avoid any unnecessary delay in the shipment of nursery stock that may be received in this state, where a certificate or tag may have been accidentally removed, I have considered it good policy to have as many nurserymen as possible file their certificates with me in my office. This is done solely for the protection of nurserymen outside of the state doing business in this territory, and is not compulsory.

W. J. JOHNSON,
College Park, Md., Oct. 3d. State Entomologist.

GROUP PHOTOGRAPHS.

Editor NATIONAL NURSERYMAN :

I would like to inquire if all members of the American Association of Nurserymen who paid \$1 for a photograph of the group of nurserymen who assembled at the court house in Omaha last June, received their pictures. I have been unable to get mine.

Wellston, Mo., Oct. 16, 1898. HENRY WALLIS.

NO INTERFERENCE IN VIRGINIA.

Editor NATIONAL NURSERYMAN :

As a great deal of unnecessary correspondence has come to me from New York State relating to the restrictions imposed by this state upon the sale and handling of nursery stock within its borders, I take this opportunity to ask you to state, through your journal, that no form of certificate of any sort is required to deal in nursery stock in this state. We have never interfered in the least with the transaction of nursery business, except where stock was known to be infested with San Jose scale.

We do, so far as possible, prevent the handling of trees infested with San Jose scale, but this does not lead to the supposition that every nurseryman's premises are infested, and no restriction whatever is laid upon the free shipment of goods to any point in this state, unless from nurseries known to be infested.

WM. B. ALWOOD,
Blacksburg, Va., Oct. 14th. State Inspector.

NEW JERSEY NURSERYMEN'S RIGHTS.

Editor NATIONAL NURSERYMAN :

In the October, 1898, NURSERYMAN you make an editorial statement on page 112, that is not quite justified to its full extent; particularly in view of the comparisons that are made with the New York law on the subject of compensation. I always read the NURSERYMAN with a great deal of interest, and as soon as possible after its arrival, because it contains a point of view which it is important for me to get. Therefore I feel it a matter of some importance to put New Jersey at least straight on the subject of inspection, certificates and destruction of nursery stock.

The nurseryman in New Jersey has exactly the same rights and exactly the same duties on his own land that every other

farmer and fruit grower in the state has. He is put in no special position by reason of his business. He has a privilege that no other farmer or grower has, which consists in the right to call upon the state entomologist to examine his premises and to ascertain whether his stock is free from serious insect pests and diseases. If they are found to be free he has the right to demand a certificate to that effect. If his stock is infested he does not thereby lose, except in so far as the refusal of a certificate may entail loss upon him. The entomologist can tell him he has scale, for instance, and that he can have no certificate; but he cannot tell him that he must destroy the stock. If the entomologist considers that the premises are so seriously infested as to be a menace to the neighborhood he can proceed against the owner exactly as he could proceed against the owner of any other infested orchard.

We have made no provisions for compensation of any kind; but on the other hand there has not been the slightest necessity, thus far, for compelling a man to destroy even a single tree. Wherever the necessity for it has existed, it has not been difficult to convince the grower that it was for his own benefit that the tree should be removed, and under the circumstances he could, of course, have no just claim for compensation. It is simply to clear up this question of compensation particularly with reference to the nurserymen that this communication is made.

JOHN B. SMITH,
New Brunswick, N. J., Oct. 6. State Entomologist.

GIRDLING TREES.

Editor NATIONAL NURSERYMAN :

I have now been girdling fruit trees quite extensively for three years. The idea was suggested to me by the accidental girdling by a label wire which caused the girdled branch to produce fruit. At first I only expected to cause early bearing and thus enable me to test the size and quality of fruit produced by the thousands of new seedlings on trial; but now I expect also to test the hardiness of the trees at the same time. Tenacity of life is measured by the amount of injury that an animal or plant can receive and still live and in the case of the tree it seems fortunate that we are now able to inflict injury by girdling to any desired degree and obtain results in a year instead of waiting indefinitely for the injury to come through the effects of a very cold winter or a very dry summer.

There is still another great advantage to be gained. We can bridge over the off year to some extent. So in every fruitful season if we spray with something to kill the fruit blossoms (I suggest salt) or remove the fruit and girdle, we may reasonably expect a crop the next season. The best method seems to be what I call the spiral method. I start in with a saw just below the limbs and cutting to the wood go down around the tree at an angle of forty-five degrees. If we would make the test very severe go twice around. This is not likely to permanently injure a hardy tree and a tender tree in this climate may as well be killed and out of the way. On trees and limbs an inch or less in diameter I use a knife instead of the saw. I have many varieties of young trees that have been girdled for three years in succession that are now doing well whilst a few other varieties have been killed by girdling once. I believe that when girdling is well understood and judiciously practiced there will be millions in it for the people and I advise very close planting of orchards and girdling after two

years. In this way a remunerative crop may be gathered in three of four years after the planting. Experiments have been confined mostly to apples, pears and plums but should be extended to all other fruit trees.

State Tree Station,
Owatonna, Minn. Oct. 15, 1898.

E. H. S. DARTT.
President.

ANNUAL INSPECTIONS IN NORTH CAROLINA.

Editor NATIONAL NURSERYMAN :

In the last issue of the NATIONAL NURSERYMAN I have noted, with much interest, your brief resume of the laws of the states regarding San Jose scale.

Under the North Carolina law you state that the certificate of inspection must be dated within six months of shipment. Formerly this was so, but this fall there has been in effect a new and very wise provision or ruling which fixes the dates of inspection twelve months apart, instead of six months as formerly, as you will see by my own certificate which I enclose herewith.

Boston, Oct. 7th.

HARLAN P. KELSEY.

IDEAL IDAHO.

Editor NATIONAL NURSERYMAN :

This is not a small country as many in the East believe it to be. Nursery business in this country will do from \$100,000 to \$300,000 per year at very good prices. The demand for Idaho fruits is becoming something enormous and our freight rates to New York are only about \$10 higher than from Georgia per car. Our country grows the finest big red apples of the West. Prunes, plums, peaches, pears, cherries, apricots, nectarines, quinces, filberts, soft shell almonds, English walnuts, chestnuts, etc. Altitude 1,500 to 2,500 feet; winters seldom below zero and summers beautiful, the snowy mountains in the distance always giving a cool refreshing breeze. Truly this state has been properly named "Gem of the Mountains." We never lack for water, we never have too much rain and never have any drouths, therefore never are known to have a failure. We irrigate and can have it rain any time we want; can have it hard or light as the land requires.

From our rivers the water carries a certain amount of sediment and mineral which is the best fertilizer known, and we have no poor lands as known in some places in the East, which have to be replenished by commercial fertilizers. This country is rapidly settling up with the best class of eastern people and is to-day the country for the young as well as the old energetic people who wish to make money.

Payette, Idaho, Oct. 22.

W. G. WHITNEY.

Campbell's Early grapes retailed for 30 cents per nine-pound basket in Buffalo this fall. The fruit was mistaken for Black Hamburg.

T. T. Lyon, South Haven, Mich., is about to retire from the superintendency of the South Haven fruit-testing station after a continuous service of ten years. He is 85 years of age.

Stone & Wellington, Toronto, Ont., last month sent us a sample of their Dempsey pear to which we have before called attention. It is a large, rich appearing fruit, and when cut bears out its promise. The flesh is white, fine-grained, sweet and juicy. It is a fine dessert pear for fall and early winter.

MICHIGAN PEACHES.

The peach orchards at Benton Harbor are now the central attractions, and when orders come from points in New York, Ohio and Minnesota for entire car loads, the fact becomes evident that Michigan peach growers have a market for their produce, says J. N. Reed in the Michigan Farmer. The prices for peaches here are some better than for the past two years, but the fact that every peach orchard has well developed fruit accounts for the constant shipment from this section by rail and boat, and the handsome returns to the owner.

The fruit belt is not limited to a distance of five and six miles from the lake this year, but runs far out into the country, which will encourage many new fruit farms. The basket factories, notwithstanding the owners were preparing for the rush all last winter, are overrun with orders. Double force of men, with night and day runs, find the companies compelled to ship by the car load from southern factories.

From the North the West Michigan brings in every night for the boat twenty-five to thirty car loads. On the same road daily two heavy trains of twenty-eight to thirty cars run through here direct for Chicago. This is equally true of the Vandalia. However, the Big Four & Vandalia line carry out every night by the Armour refrigerators from forty to eighty cars, headed for Peoria, Toledo, Buffalo, Minneapolis and local Indiana points.

The Hyland farm, lying ten miles from the lake, owned by M. A. Jennings, last year was outside the fruit limit, this year from twenty acres the owner will net \$4,000. Mr. Jennings is shipping wholly by car to Indianapolis and lake points. The Morrill farm of 100 acres is loaded, and were it not that the Elberta peach was unfortunately damaged, the returns for the season would be \$15,000. The L. T. Burrige farm of 90 acres, for which the owner has frequently refused \$27,000, has a prize forty acre peach orchard, from which fruit found ready market in Chicago at \$2 there, and in many cases \$4 per bushel. From the Hicks farm a three-acre lot netted the owner \$2,050. Other fruit orchards are netting generally \$300 to \$400 per acre.

Obituary.

B. F. Elliott, Red Oak, Ia., died recently aged 62 years.

O. O. Wirick, Mendota, Ill., died recently at Adrian, Mich., aged 36 years.

John M. Samuels died at his home in Clinton, Ky., September 29th, aged 50 years. He early engaged in horticultural pursuits. At different times he had nurseries, vineyards and berry farms in Tennessee, Florida, California, Louisiana and Kentucky. He was chief of the horticultural department of the World's Fair at Chicago and was offered responsible positions in the horticultural departments of the Trans-Mississippi Exposition in Omaha, and at the coming International Exposition in Paris. When his father died a few years ago he went to Clinton, Ky., and bought the Mississippi Valley Nurseries. His brother, W. B. Samuels, is in the nursery business at Ardmore, I. T.

The Jewell Nursery Company, Lake City, Minn., had a large display of apples at the county fair at Grundy Center, Ia., also at the Minnesota state fair.

Among Growers and Dealers.

J. B. Morey, Dansville, N. Y., made a western trip last month.

Professor L. H. Bailey has returned from a vacation in Europe.

Russian mulberries are wanted by the Rosedale Nursery, Brenham, Texas.

H. A. Chase, of Philadelphia, was in Geneva, N. Y., during the packing season.

Harry L. Boyd, Chestertown, Md., called on Western New York nurserymen last month.

Standard apples will be sold cheap by Pierson Brothers, Waterloo, N. Y., to clear ground.

President Stanley, of the Wichita Nursery Association, is the republican candidate for governor of Kansas.

Oscar Lamar has purchased the McQuigg farm near Waco, Tenn., for the purpose of establishing a large nursery.

J. G. Patterson & Sons, Stewartstown, Pa., offer trees of the Klondike peach highly recommended as a late white peach.

The Worden Seckel pear is offered by Smiths & Powell Co., Syracuse, N. Y. Also a full assortment of general stock.

The government seed contract for 1899 has been awarded to the New York Market Gardeners' Association for \$70,980.

Youngers & Co., Geneva, Neb., call attention to their apple seedlings and add that San Jose scale has never been found in Nebraska.

F. W. Watson & Co., Topeka, Kan., have just completed a grafting house. They are prepared to meet a large demand for good grafts.

Fall shipment and spring payment on small fruit plants of all kinds in large assortment is the offer of W. N. Scarff, New Carlisle, O., to responsible firms.

The New York Park Board has contracted for the planting of 30,000 trees and shrubs in Riverside Park, between Seventy-ninth and Eighty-sixth streets at an estimated cost of \$18,000.

Julius Roehrs, Rutherford, N. J., is propagating for distribution in the United States the *Acalypha Sanderi*, the most novel flowering plant introduced in many years. It is an introduction of F. Sander & Co., England.

Own root roses and clematis are specialties with Jackson & Perkins Co., Newark, N. Y. They are the largest growers of clematis in this country. They are also agents for Charles Detriché, Sr., Angers, France, exporter of fruit tree stocks.

L. A. Goodman and Colonel Evans, of Missouri, say that one crop of peaches and pears will pay for the land on which they grow, pay for the trees planted and pay for the labor, and still leave a dividend as interest on the money invested.

Professor B. E. Fernow has resigned the position of chief of the division of forestry in the United States Department of Agriculture, and has been succeeded by Gifford Pinchot. Professor Fernow has charge of the new school of forestry at Cornell University.

French fruit tree and nursery stocks, apple, pear, plum, cherry and quince and forest tree seedlings and ornamentals are offered in fine assortment by C. H. Joosten, New York

city, agent for Lenault Huet, Ussy, France, and for the Boskoop, Holland, Nursery Association.

Judge Samuel Miller, Bluffton, Mo., says of quinces: "For thirty years I have been trying to grow this fruit, but never raised half a dozen. But to-day, September 18th, I discovered twenty on one tree. The tree is large enough to bear three bushels, and never yielded fruit before."

A branch of the American Association for the Advancement of Science, to be known as the Horticultural Society, has been formed with these officers: Professor B. M. Watson, Harvard, president; Professor F. A. Waugh, Vermont, vice-president; Professor W. M. Munson, Maine, secretary.

C. H. Perkins, of Jackson & Perkins Co., Newark, N. Y., has just purchased a farm of 338 acres located about two miles southeast of the village of Lyons, N. Y., consideration \$13,000. The place is known as the Moses Mirick farm, and was once sold for as high as \$25,000. It was at one time mortgaged for \$20,000, the loan having been made on a basis of 50 per cent. valuation.

HOW TO IMPROVE OUR APPLES.

Cross our best varieties and plant seeds from these, says J. A. Burton. Discard all but the best of these seedlings. Establish thoroughbred varieties, that is, those kinds which will reproduce themselves from seed. This will take a long time, but much may be accomplished in the way of improvement of our present varieties.

Recent Publications.

The proceedings of the Columbus, Ohio, Horticultural Society, July number, have been issued by the secretary, John F. Cunningham.

The division of forestry at Washington has issued bulletins by Charles A. Keffer on "Experimental Tree Planting in the Plains," and by John M. Simpson on "Osier Culture."

We have received from State Entomologist W. M. Scott, of Georgia, the printed proceedings of the State Department of Agriculture for 1898, including an extended report by the State Entomologist regarding the treatment for San Jose scale in each county where discovered. The scale is mostly in the southern part of Georgia.

The American Florist Company's directory of florists, nurserymen and seedsmen of the United States and Canada, issued annually, is of great service in the offices of the trade. The lists are arranged both by states and postoffices and alphabetically. Much special information in addition to the lists is given. Pp. 350; \$2. Chicago: AMERICAN FLORIST COMPANY.

Number 12, completing volume IX of the experiment station record has been issued by the United States Department of Agriculture. The abstracts in this volume occupy 770 pages, and required, in their preparation, 56,569 pages in the original publications. In volumes VIII and IX 292 articles upon horticulture, 155 on botany, 27 on forestry, 186 on diseases of plants and 378 on entomology were published, besides 195 statistical articles. With other subjects the total number of articles in the two volumes is 3,375. The department hopes to secure funds sufficient to make brief abstracts of all subjects recorded.

CATALOGUES RECEIVED.—Storrs & Harrison Company, Painesville, O., roses and other ornamental stock and general line of fruits, 65 pages, with price list; Glen St. Mary (Fla.) Nurseries, G. L. Taber, citrus, nut-bearing and general fruit trees and southern ornamental stock, 57 pages and price list; J. W. Kerr, Denton, Md., specialty native plums, full descriptive list, illustrated; Colombe Brothers, Ussy, France, forest trees, thorns, fruit tree stocks, coniferae, etc.; Association Flora, Boskoop, Holland, P. Ouwerkerk, Jersey City, N. J., roses, clematis, shrubs, azaleas, palms, etc.

WHERE FRUIT GROWS.

The Fertile Region Along the Port Arthur Route from Kansas City to the Gulf—Fruit Business Yet In Its Infancy But Remarkable Results Have Been Achieved—Large Plantings Are made There Annually.

A. F. Coleman, of Corning, read a paper at the annual meeting of the Iowa Horticultural Society, in which he said:

Recently I took a trip over the Port Arthur route, a great trunk line, from Kansas City to the gulf, that passes through a beautiful region of fine farming country, great mining interests and vast lumber regions, a country noted for great springs of pure water, and a mild lovely climate. This country is comparatively new, but is being settled by a class of thrifty people mostly from the northern states. The interests of that country are vast and varied, but we have only time to notice the fruit interests. Along the line the country is new, and the fruit business is but in its infancy. In passing through the country we saw a few orchards that have been planted by old settlers and many of the trees are seedlings; now they are planting more systematically.

The Ozark Orchard Company was organized in 1895, and about 5,000 apple and a few peach trees were planted. This is near the little town of Goodman, where the company owns 4,500 acres of fine orchard lands, the ground is well drained and fertile, the trees planted are healthy and thrifty, the country beautiful and well watered with fine springs. In the spring of 1896 about 1,000 acres were planted, mostly apples, of our standard varieties, where the land had been cleared, and the brush burned in the fall of 1895, and the ground plowed during the winter. In the spring of 1897 that company planted over 200 acres that less than a year before was covered with timber. Here the company planted in 1897 5,000 peach trees, 10,000 apple trees, 5,000 raspberries, 5,000 blackberries, 5,000 strawberries and 1,500 gooseberries. Some of the peach and apple trees, planted two years, ripened some fruit, and the trees look as if they had been planted four or five years. At Lanagan, in the spring of 1897, in Southwestern Missouri, 350 acres were planted, consisting of 21,000 apple trees, 3,000 peach trees, 5,000 raspberries, 5,000 blackberries and 5,000 strawberries.

Planting at Gentry, Arkansas, in 1897, this selection was made because of its being especially a high ridge and the head of a dry valley, peculiarly rich and well adapted to the production of all kinds of farm produce as well as fruits. No better ridge of land for fruit growing exists in Northwestern Arkansas, or any country, in my opinion. The dry valley just a little lower than the ridges will some day show the finest orchards in the whole Ozark region—just rolling enough to give good drainage to both water and air, and all underlaid with the peculiar red soil that is the fruit grower's delight in the southern country. Here have been planted 12,000 selected trees of our best commercial varieties. Here you can stand and see the rows of trees two miles in length without a break. No fruit men could look on this orchard and see the healthy condition of the trees without falling in love with the country.

At Gentry 17,500 apple trees were planted in the spring of 1897, and all made a fine growth. This company has planted 6,000 peach trees, 29,000 apple trees and 16,500 plants of small fruits. As a resume therefore, this company has planted

about 1,380 acres of orchard, consisting of 9,000 peach trees, 78,500 apple trees and 31,500 plants of small fruits. This great orchard extends on both sides of the railroad for miles. This is only the work of one company. Many others are being organized, and farmers generally are planting large orchards, along the line of the Port Arthur route. Many thousand trees were planted in the spring of 1897 and it is estimated by careful men treble this amount will be planted in the spring of 1898. In my opinion the day is not far distant when you will see a continuous orchard from Kansas City to Siloam Springs, a distance of 230 miles, on both sides of the road. But little if any waste lands. The ridges and rough lands are their best orchard lands, the valleys and level lands are excellent for small fruits and farming. And thousands of northern and eastern people are eager to buy their fruits at remunerative prices.

But you say these are suppositions. So I will give you a few figures, obtained from the very best authorities along the line, where the fruits pay like gold mines. Three hundred car loads of strawberries were shipped in the summer of 1897 from one section and brought into one town \$250,000.

This gave employment to 10,000 people. Mr. Davidson had berries that paid \$300 per acre. Mr. Speakman, of Neosho, Missouri, sold peaches for more than \$350 per acre. Mr. McNaire, from four year old peach trees, sold from 160 acres \$15,000 worth of peaches. Mr. Bardwell, of Gentry, Ark., sold peaches at over \$300 per acre. Mr. Carr made over \$100 clear per acre off his berry patch. Mr. Leake sold forty acres of apple orchard nine years old for \$2,400 on the trees. Mr. Sauther got \$84 per acre for his apple orchard. Mr. Baylis has 400 acres of apple trees that brought him \$30,000 on the trees, the trees being nine years old.

All these things can be had by men of push, without loss of home and home pleasures, with none to molest or make afraid along the Port Arthur route. Many sold their apple crop this year for more than they asked for their whole farms a year ago.

Only a few years ago the idea of commercial fruit growing in the Ozark region was ridiculed. Now millions of fine trees are growing, and hundreds of acres are producing crops of small fruits.

And in the fruit season thousands of people find employment in picking and packing these fruits, while special fast fruit trains go out daily, carrying them to the markets of our great cities, and furnish fruit for our export trade.

THE PRUNE INDUSTRY.

In his pamphlet on the fruit industry, recently issued by the Department of Agriculture, Assistant Pomologist W. A. Taylor, gives an interesting account of the development of the prune industry in this country. He says that in 1821, 125,300 pounds of prunes were imported. The amount rapidly increased and, in 1888, 82,914,579 pounds were received. The greatest value of this importation of prunes was in 1882, when \$3,084,304 worth were brought in.

Over forty years ago, leading men recognized the fact that these prunes ought to be produced in this country. In 1854, the Patent Office imported scions of French prunes and distributed them in the eastern and northern states. At that time it was thought that the state of Maine, where the curculio was seldom seen, would in time supply the entire Union with

dried prunes. The enterprise failed, however, but in 1856, scions were sent from France to California and there the industry began to thrive. It grew slowly, so that, in 1881, the largest grower in California rarely put out over five or six tons of dried fruit. In 1896, however, the California product was estimated at 55,200,000 pounds, and this will be largely increased in the near future.

Washington, Oregon and Idaho are also engaged in prune culture, so that, probably, the product of American orchards for next year will exceed 100,000,000 pounds of dried prunes. The effect of this was rapidly seen in the decrease of imports. In 1891, there were imported 41,012,571 pounds of prunes, valued at \$2,139,215; in 1897, these imports had shrunk to only 736,978 pounds, valued at \$74,165.

VALUE OF EXPERIMENT STATIONS.

Hon. Charles W. Garfield, Grand Rapids, Mich., in his address at the dedication of the new biological building, at the Geneva, N. Y., experiment station, said:

"My personal experiences and observations have been largely with the horticulturists. I have seen the wonderful potency of the experiment station in educating the rank and file of the growers. It matters not if a large proportion of them do not recognize the source of the amendments in their practice which have added so materially to their success. Many of them may not even know of the existence of the experiment station; but the fact is unquestioned, they have been lifted to a higher level of practice, and sometime they will recognize the source of the evolution.

"To-day in my own state, the horticulturists are openly and without loss of self-respect, acknowledging their dependence upon the experiment station for constant and increasingly valuable aid. And the men of science are happy in their opportunity to take off their hats to men like Lyon, Morrill, Stearns, Monroe and Kellogg, leaders in our horticultural practice, and acknowledge their scientific ability. This relationship is healthful, beautiful and inspiring."

FALL-DUG PEACH TREES.

Last fall a Massachusetts reader bought a lot of peach trees, pruned the roots and tops, and heeled them in, covering the tops as well as the roots with earth, says *Rural New Yorker*. Last spring, most of the tops appeared to be dead and dry most of their length. We asked a number of the horticultural authorities whether it is probable that covering the tops with earth caused this injury, and whether they consider it unsafe to dig peach trees in autumn for spring setting. The following is a summary of their replies:

Edwin Hoyt, Connecticut, says that, as a rule, he does not advise taking up and heeling in peach trees, or even setting them in the fall. The peach is a late-growing tree, holds its foliage late, and the wood is porous and needs the leaves until they drop off naturally, to harden the wood. There is much more risk in planting peach trees in fall than in spring. If heeled in at all, it should be in dry soil with the tops all left on. They should be in a slanting position with one-third to one-half of the bodies covered, and the soil be thoroughly worked about every root. Well-grown peach trees set in spring and properly cut back, seldom fail to grow. He cannot

see why any one should want to buy peach trees in fall to be set in spring. Let the nurseryman take the risk of wintering the peach trees. All other fruit or forest trees may be set with safety in fall, except on wet ground.

J. H. Hale, Connecticut, says that long experience has taught him that it is entirely unsafe to handle northern-grown peach trees in the fall. They grow the latest of all trees, and do not fully mature their roots and tops until about freezing time in early winter. The practice of digging and selling them in October or November is a dangerous one, and the nurseryman who cares for his reputation should recommend his customers to buy peach trees in the spring. The cause of the loss by the Massachusetts reader was, probably, from burying these immature, succulent trees; as for thoroughly ripened trees, this treatment is the best he could have given them for his latitude.

Professor S. T. Maynard of Massachusetts, does not consider it at all unsafe to dig in the fall, and heel in for spring planting, and would advise it if the trees are growing late and are on rather heavy soil. On thin, rather poor soil, they will stand more exposure. In heeling in trees, the tops should always slope to the south at an angle of about 45 degrees, that the sun may strike the branches as little as possible. They should be heeled in only in light, well-drained soil.

Foreign Notes.

It is suggested that people who do not keep a scientific gardener should go to Kew, England, for plants; that this would not injure the nursery trade, but rather would quicken it.

The Gardeners' Magazine, London, recently published an interesting account of a visit to L'Horticulture Internationale, in the Rue Wiertz, Brussels, the remarkable establishment of the late Jean Linden, now conducted by his son, Lucian Linden.

Covent garden wholesale prices during the last week of September were: Peaches, per dozen, 8 and 12s.; Hamburg grapes, per pound, 1s.; Ribston and Bleinheim apples, per sieve, 3 and 4s.; pears, foreign, in French crates, 20s.; Duchess, 11 and 14s.

A scale insect, similar to but quite distinct from the San Jose scale, has been introduced in England on a consignment of Japanese cherries from Japan. It was originally discovered on the peach in Australia and has been found, it is stated, in Jamaica, Trinidad and in 1892 in the United States on dwarf flowering almond and fifty tea bushes imported from Japan.

In the memoirs of the National Horticultural Society of France, it is recorded that the graft which produces variation in the seed may be employed to produce new varieties. The variation may frequently be diverted culturally, so as to impart, almost assuredly, after repeated graftings, certain qualities of taste, shape, color, etc., to a plant which did not originally possess them and which varies easily under cultivation.

The annual fruit show of the Royal Horticultural Society was held last month at Crystal Palace, London. Only a veritable specialist, says the Gardeners' Chronicle, could see any indication that 1898 is an indifferent fruit season. There are a few more exhibits than in 1897, and the falling off in color and size of apples and pears, though a fact, is to be seen only after very careful inspection. In the nurserymen's competitive classes T. F. Rivers & Son, Sawbridgeworth, won the premier prize, a gold medal, for fruit trees bearing fruit in pots; Bunyard & Co., Maidstone, the gold medal for collection illustrating orchard house culture; G. Mount, Canterbury, for fruits grown entirely in open air. Bunyard & Co. won easily the prize for a collection of seventy-five distinct varieties of apples and pears.

The National Nurseryman.

FOR GROWERS AND DEALERS IN NURSERY STOCK.

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"Aye, be plantin' a tree, Sandy, ma man; it 'll be growin' when ye 're sleepin'."

VOL. VI.

ROCHESTER, N. Y., DECEMBER, 1898.

NO. 11.

TREES IN CITY STREETS.

Plans of the New York Tree Planting Association—Well-Directed Efforts Have Overcome Obstacles—Need of Legislative Authority—What Other States Have Done—In European Capitals—Prominent Nurserymen Interested.

The publication in the November issue of the NATIONAL NURSERYMAN of an advertisement of the Tree Planting Association of New York attracted the attention of a subscriber who asks further information on the subject.

The association was incorporated in 1897 for the purpose of securing the planting of shade trees in the sunburned streets of the metropolis, with particular reference to the residence portion of upper New York. Ex-Mayor William L. Strong is president of the association; Cornelius B. Mitchell, vice-president; Charles R. Henderson, treasurer, and John Y. Culyer, secretary. In October there were 166 members. Among them are: W. Bayard Cutting, W. Bourke Cockran, R. G. Dun, Mrs. Walter Damrosch, Franklin Harper, Nathaniel T. Kidder, John B. Leavitt, J. Pierpont Morgan, Mrs. John W. Minturn, Captain A. T. Mahan, Samuel Parsons, Jr., Rt. Rev. Henry C. Potter, Lisenard Stewart, Charles Scribner, Frank Tilford, William C. Whitney. The annual dues are \$5.

Applicants for information are informed, in accordance with the advertisement produced in the last issue of this journal, that H. A. Siebrecht & Son, 409 Fifth avenue; Frederick W. Kelsey, 150 Broadway; Edgar W. Gifford, 702 Boulevard, New York city; Hiram T. Jones, Elizabeth, N. J.; R. Pritchard & Sons, Long Island city, and Edward C. Dorrbecher, West Hoboken, N. J., will furnish one or more trees, cut flag stone and plant with one cubic yard of loam over porous material and furnish iron tree protector, guaranteeing the trees for from one to two years at certain prices named. The trees are to be from 12 to 15 feet in height, 2 to 3 inches in diameter and the prices for the entire work run from \$5 to \$20 for each tree. Where blasting is required the cost will be increased. If trees are ordered by the dozen or 100 they can be obtained from the large wholesale nursery firms of the country, a list of 15 of which is given the applicant.

Separate prices on iron tree guards and places where they may be procured are given. The association adds: "It will be advisable to form clubs of twelve or more residents of the block on which you reside, or of your friends, whether members of the association or not, to select from the enclosed list the kind of trees you may decide on, and to order early."

The enclosed list is as follows:

The following trees are recommended by experienced nurserymen as being the most suitable to select from, for growth in New York city: Norway Maple, Sugar Maple, Silver Maple, American White Elm, Scotch Elm, Pin Oak, Red Oak, American White Ash, American Sweet Chestnut, Common Horse Chestnut, Hardy Catalpa (Catalpa Speciosa), Tulip Tree or Tulip Poplar (Liriodendron Tulipifera), Balsam Poplar,

Lombardy Poplar, Carolina Poplar or Cottonwood, American Linden (or Basswood), Lime (or European Linden), Nettle Tree (Hackberry), Oriental Plane Tree, Sweet Gum (or Liquidamber), American Plane Tree (Button Ball or Syeamore). If the Ailanthus is used for planting, use only pistillate trees. (No smell).

RUSSIAN PLUMS.

Professor J. L. Budd, of the Iowa Agricultural College says: "Professor Cranefield consigns the Russian plum to a nameless grave and suggests a burial epitaph. Our critics have specially endorsed this opinion. They have not proved as hardy or fruitful at the North as we had reason to expect but the amateur reports we are now receiving by the hundred show that a number of the varieties have come to stay." Professor Budd reproduces fourteen letters highly praising the Russians.

HORTICULTURAL SOCIETIES.

State horticultural society meetings have been called as follows: Kansas, at Topeka, Dec. 27-29; Ohio, at Euclid, Dec. 7-9; Missouri, at Columbia, Dec. 6-8; Iowa, at Des Moines, Dec. 13-16; Minnesota, at Minneapolis, Dec. 6-9; Ontario, at St. Catharines, Dec. 1-2; California Fruit Growers, at Fresno, Nov. 29-Dec. 2; Maryland, at Baltimore, Dec. 14-15; Southern Illinois, at Vandalia, Nov. 29-Dec. 1; Michigan, at Michigan University, Dec. 6-8.

"LITTLE PEACHES" IN MICHIGAN.

It is reported that the large peach orchards of Southwestern Michigan are being destroyed by a disease known as "little peaches," the fruit being stunted when about the size of hazelnuts. Professor Erwin Smith pathologist of the United States Division of Pomology visited the section and afterward stated that he had been unable to discover the cause. He also stated that he believed it to be highly contagious, and recommended that the diseased trees be promptly cut down and destroyed by fire. This is the treatment prescribed by law for the yellows.

MUST GROW BETTER FRUIT.

A Ghent, N. Y., writer says: The fruit growers of the East might as well face the fact, and the sooner the better, that the western men are going to force them out of their own markets, the best in the world, at their own doors, unless they change their methods and grow better fruit. The trees that are being planted at present and the orchards now standing on eastern soil might better be rooted out and burned on a brush pile than to stand and under neglect be allowed to produce so much inferior fruit that does not pay the grower or the salesman to handle, and which consumers are now fortunately positively rejecting and refusing to buy.

TREE AGENT'S TALE.

Dissected by a Prominent Horticultural Practitioner—A Series of Statements and Counter Statements in which Nurserymen and Their Agents are Interested—Professor Bailey Tells "What to Say Back."

Buy first-class trees of reliable dealers, says Professor L. H. Bailey in the Rural New Yorker. It rarely pays to try to save a few cents on a tree, for quality is likely to be sacrificed. At the present time, nursery stock is so cheap, that one need not quibble about prices. Agents who represent reliable nurseries, and who bring proper credentials are to be trusted; but there are irresponsible scamps traveling over the country who sell most astonishing stock. They are usually plausible fellows, and they have the knack of weaving a few slender threads of science into a fabric of which the warp and woof are credulity and humbug. A correspondent who was visited by an enterprising agent, sends me the following account, the statements in which would cause Ananias to burn with envy:

"A representative of a nursery was in to sell me some trees. He says that yellows (1) and black-knot (2) are caused by a lack of vitality; that the fruits, not being indigenous to this country, have run out (3); that nurserymen get their seed from the canning factory and cider-press, and hence get seed from diseased trees which produce their kind, i. e., dressed stocks, which they graft without regard to kind or quality (4). He says that a sweet apple ought not to be grafted upon a sour apple stock, or a colored apple upon a light apple, and vice versa, or a yellow peach upon a white peach stock (5), etc.; that if they are, they produce mongrels and not their kind (6). In fact, he says that fruit should not be grafted but budded (7); that wood never grows to wood, and that the wood of the end of the graft often decays, and this decay is communicated to the heart of the tree, which becomes black throughout its whole length and does not grow well and dies in a few years (8). He says that a plum or cherry tree that has black-knot on the limbs, also has it on its roots, and the whole tree is affected, as is proved by the blackened heart (9); and that it is due to deterioration and is not parasitic. Another result of this deterioration, he says, is the thinning of the sap by an excess of water; that tree sap will not freeze until the mercury falls to 28 degrees below zero, but that the thin sap (which also more readily rises) freezes at 10 or 12 degrees higher, hence fruit is often winter-killed which would not be if the trees had sufficient vitality to produce good sap (10). He says that his nursery and only two others in the United States import their peach seeds from Persia, their apple from Russia, their plum and cherry from Germany, which are the natural habitats of these fruits (11); that they bud a sweet apple upon a sweet, a sour upon a sour, a red upon a red, a late upon a late, and the same way with peaches and other fruits, as nearly as they can, the kind upon the same kind (12); that a man does not breed a race horse to a draught horse, or a Short-horn to a Jersey, if he expects good stock; so with fruit (13). By getting their seed from the home of the fruit, they escape the disease caused by a removal to a strange country, and inbreeding and diseased seed (14). By budding they get a better union than by graft, and hence get a hardier tree which grows faster, lives longer and is not so easily winter-killed (15); by breed-

ing similar kinds together, they get better fruit and truer to name, and as their trees are hardy, they are thrifty and bear early, the apple at eight years and the peach at four or six years from the seed (16)."

I have numbered the various statements, that I may hang them on the girdle of Mephisto. 1. Peach yellows is believed by all the best authorities to be a specific disease. 2. Black-knot is known to be the result of the attack of a fungus. 3. Fruits do not run out because of mere transfer to another country, or because they are not indigenous to a country. 4. Of course, stocks are grafted without regard to their kind or quality, because there is no way of telling what kind or quality of fruit they will bear until they begin to bear! When they begin to bear, they are too old to make into nursery stocks. There is no reason for saying that, because seeds come from canning factories and cider mills, they are diseased. Run-wild trees, as well as cultivated ones, may be diseased. With the possible exception of peach yellows, there is, probably, no common disease of tree fruits which is transmitted to the offspring through the seeds. 5. A mere sophistry. 6. The scientific world is waiting for proofs of just such hybridity as this. 7. There is no essential difference between budding and grafting. Some methods of grafting are to be condemned in certain cases, but no man can safely make such a sweeping comparison. 8. Has enough truth to mislead. Old or heart-wood does not grow again. It does not heal. The callus covers it. If decay sets in, the decay may extend far into the heart, for this decay is the work of a fungus. 9. Nonsense. 10. The sap and the tap-root are the particular bogies of horticultural quacks. It is safe to make almost any statements concerning them, since the fruit-grower cannot disprove them, even though the statements may be little more than cunning nonsense. 11. Tell us the names of those three nurseries? But it is unfortunate that Persia is not the natural habitat of the peach, or Russia of the apple, or Germany of the plum! But these are merely technical slips. The larger truth is that there is no proof, or even evidence, that seeds taken from the natural habitats of these fruits give any better stock than seeds secured with equal care elsewhere and within the range in which the species thrive. 12. Humbug. How do they tell which stock is to produce the red fruit and which the sour fruit? 13. It is a common sophistry to compare the breeding of animals with the breeding of plants. Practically the only point in common is the accident that we use one word—breeding—for our operations in the two kingdoms, the animals and the plants. But similarities in words mean nothing, else we could compare the head of a stream with the head of a family. But wholly aside from this, grafting and budding are not breeding in any proper sense of the term. 14. Yes; seeds may be expected not to have diseases which do not occur where the seeds are produced, but this fact does not prevent the seedlings from acquiring diseases which occur in the country in which the seedlings are to be grown. 15. Not necessarily so. 16. Nonsense. Peaches ought to bear at four to six years from seed, and apple trees now and then bear at eight years from seed.

EVERY ISSUE SEEMS THE BEST.

J. L. GEYER & SON, NORWICH, OHIO, Nov. 19, 1898.—"Enclosed find \$1 for NATIONAL NURSERYMAN another year. We can't keep house without it. Every issue seems the best."

HARDY HYBRID ROSES.

In the fall of 1896 we imported from Germany a large collection of new fruit and ornamental shrubs and trees gathered together from many parts of the temperate zone says Professor N. E. Hansen, Brookings, S. D. Many of these flowered last year and are blooming again this year. Among the roses we find the Madame Charles Frederic Worth remarkable for its wonderfully free blooming habit. The flowers are in clusters, large, double, very fragrant, color a beautiful rosy crimson, changing to purple crimson as the flowers fade. The plant is a hybrid of the *Rosa rugosa* and has retained its sturdy habit and strong foliage. Last year this hybrid blossomed from July to the end of the season, and this year it began the middle of June and bids fair to repeat the performance.

While promising to be valuable for general cultivation, the variety is not superior to many of the varieties obtained in 1892 and 1893 at the Iowa Agricultural College by Professor Budd, assisted by the writer, by crossing the Russian *Rosa rugosa* with some of the choicest cultivated roses. These new varieties, which are now being propagated at Ames, retain in large measure the extreme hardiness and free blooming habit of this Russian wild rose, with the size and doubleness of flower of the garden varieties. There is a difference in the *Rosa rugosa* plants. Those from Japan are inferior in beauty and size of flower to those imported by Professor Budd from Russia, which came originally from Siberia. From the Russian wild roses will come a long list of roses hardy throughout the Northwest, where the common garden roses winter kill.

AT AMES, IOWA.

After a visit to the agricultural college at Ames, Ia., Frederick Crane-field of the Wisconsin Experiment Station writes :

"In the nursery are several rows of trees that in a year or two will prove objects of national interest in horticultural circles. These are the hybrid apples, crosses between the cream of the Russians and such sorts as Ben Davis, Jonathan. Osceola, etc. With apologies to Professor Budd and most of the Russians I venture the prediction that these and the seedling progeny of a small half-dozen of the 500 or more M's Orels and Anisims will exist in the Northwest centuries after a patient and suffering, apple-eating public have consigned to a nameless grave all the rest of the Russian tribe, perhaps not namless either, for if the parties that do the buying have any sense of the fitness of things they will inscribe : 'Here lies the hardiest as well as the toughest and most palatable set of apples ever gotten together in any two centuries.'

"P. S.—'Here also lie the Russian plums.'"

ARIZONA WONDERS.

Professor Bernard E. Fernow, director of the Cornell university department of forestry, in an address before the Cornell Lazy club said of Arizona horticulture :

"At Tucson agriculture is impossible, except for an experiment station. Yuma is the center of a district having wonderful horticultural possibilities. The river is here thirty feet below the surrounding land and water is pumped from it to a height of 160 feet to supply the "mesas" sloping up from the

river banks, citrus fruits, particularly lemons ; grapes, peaches—everything seems to thrive in this remarkable soil. To illustrate : Three years ago, two men took a quarter section, got trusted for their stock and turned to with a will. To-day they have paid all debts and have \$6,000 in the bank. Their profit came mostly from grapes shipped to California four weeks earlier than the California vintage and bringing at the rate of 400 per acre.

"The vines grow so rapidly that they cannot be trained to a trellis but cumber the ground like so many gigantic weeds. Figs and almonds grow wild. Almond trees set thirty feet apart touch each other in two years. Alfalfa cuts eight to nine tons per acre. Methinks the skeptic now puts on a sarcastic grin, but these are facts. It all lies in soil of wonderful fertility and an exceptional climate."

PEACHES IN THE SOUTH.

A Georgia correspondent of the Rural New Yorker says that nurserymen report that they have nearly all sold out of peach trees. He thinks this means a large increase in southern orchards. The southern crop, this year, glutted the markets, and prices ran low. He thinks that, in five years with the increased planting of peaches, there will be a tremendous overproduction of the fruit, almost equaling the overproduction of cotton in its disastrous effects. He wants to keep out of the glut, if possible, and thinks of planting his orchards to mixed fruits. Apples, he thinks, will be a profitable crop, the southern markets hardly ever being supplied.

Foreign Notes.

In New South Wales all infested fruit coming from other colonies may be seized and destroyed, or returned to the shipper at his own expense. Fruit growers are generally assisting the government in enforcing these laws.

Orchardists in Tasmania are subject to a fine of from \$2.50 to \$5, with costs, if they fail to bandage their trees to keep down the codlin moth, or if they fail to gather and destroy any infested fruit. Wormy apples sent to market are liable to confiscation and destruction and the shippers to prosecution.

The South Algerian Agricultural Society has created three oases in the Oued Rir' region of the Sahara Desert and is endeavoring to propagate dates, figs, vines, apricots and pomegranates. Asparagus has so far proved most successful. If it can be packed properly it may prove profitable to ship to Paris, five days distant.

The sixty leading horticulturists of Great Britain and Ireland who were recipients of the Victoria Medal of Honor in Horticulture, instituted by the Royal Horticultural Society in 1897 to commemorate the sixtieth year of her Majesty's reign, have now been presented with a diploma verifying their title to the use of the now well-known letters V. M. H.

The Nursery Florists and Fruit Growers Syndicate, Ltd., has been formed in England with a share capital of £12,000, for the purpose of acquiring the long lease for 30 years from Michaelmas, 1898, of the farm known as Edgewarebury Farm which is upwards of 170 acres in extent, and contains some of the most productive meadow and pasture land near London. It is situate nine miles from London, and comprises farmhouse, cottages, and most commodious farm buildings. The rent for the first 21 years is at the rate of £2 per acre, and thereafter a trifle above that figure. This rent is a very low one, as nurserymen and florists within 12 miles of London usually pay between £12 and £15 per acre for land used for similar purposes.

FRUIT TREE CUTTINGS.

*Result of Experiments at Cornell University—Hardly to be Hoped
That the Plan Can be of Commercial Value in General
—The Study of Varieties—Many Things are to be
Considered in Connection with the Work.*

At the September meeting of the Columbus, Ohio, Horticultural Society Fred K. Luke who has been studying for several years at Cornell University read a paper on "The Propagation of Fruit Trees from Cuttings." He said:

"For some years graftage has received the condemnation of some of the leading horticulturists of the old world. They did not hesitate to pronounce it pernicious. The most vigorous opposition to graftage was about fifteen years ago. In recent years we have not heard so much. Some of the arguments hurled against graftage by these champions may be of interest to-day.

"First.—Grafting is often badly done; unsuitable stocks are frequently used.

"Second.—Of all forms of grafting, root grafting is most successful and best, as it allows the scion to throw out roots of its own.

"The old notion of grafting a weakly variety onto a more vigorous stock is wrong in principle, and very often leads to bad results in practice.

"Fourth.—The least of two evils is to graft strong growing scions on dwarf stock. Such trees require more constant culture and attention than the same variety worked on seedlings.

"Fifth.—Granting that grafting is in some cases expedient, yet it remains an unnatural makeshift or sham, and has led and still leads to an enormous loss of growth force.

"Sixth.—While grafting is, so far as mere stock growing is concerned, very convenient; it may also, under its best conditions, (viz., suitable stocks and root grafting) be expedient and useful; yet at the present time it is by no means proven that in many cases own root fruit trees would not equal or surpass grafted ones in fertility and durability, etc.

"In 1889 the editor of one of the leading horticultural papers of England advanced the following ideas in opposition to grafting. "It is not only that we lose the shrubs by death, disease, or canker, but if they do grow on these strong growing stocks, we are prevented from seeing their natural habit." He attacks nurserymen because they graft and thinks that buyers should demand stock on own roots.

"Arguments like the above naturally led people to wonder how to get stock on own roots. As most of the herbaceous and some of the woody plants are readily grown from cuttings it was but natural for them to think that fruit trees should be grown in the same way. There followed a period in which this notion had many enthusiastic advocates. Among this number were some who stood high in the horticultural world. To some extent there was some foundation for this new belief. That is some of those who would propagate fruit trees by this new process had made more or less experimental observation along this line. Some came to this conclusion by means of very limited or accidental observation. While a third class either based their argument upon the stories they heard or they reasoned by analogy, if the willow will grow from cuttings why not the apple, etc.? For some years fruit trees were grown from cuttings on a very large scale on paper. I find but very few who have actually experimented along this line.

CONTROLLING CONDITIONS.

"When we undertake to grow a plant from cuttings, we must consider not the plant alone, but the condition we can give it as well. We do not always realize fully how difficult a matter it is to control conditions. I have no doubt that most any tree can be grown from cuttings if we can give those cuttings just the conditions they want. But right there in the conditions we meet an obstacle which is not easily overcome. Since I began work on this subject I have handled 7,397 cuttings and am led to believe that nearly each variety demands conditions a little different from any other variety.

"When we decided to study the propagation of fruit trees from cuttings, we could learn of no one who had any definite knowledge on

such a subject. The only way for us to get any information was to go to work. We chose the apple, pear, plum, and grape. In the latter both scion and root cuttings were made and each cut into three lengths, one inch, three inches, and six inches. In case of each of the others both scion and root cuttings were made as follows: The scions were cut from three seasons' growth, each of which was cut into three lengths the same as in the grape. The roots were graded according to diameter as accurately as was possible, viz., one-half inch, one-fourth inch, and less than one-fourth inch, each of which were cut into three lengths the same as the scions. This gives us eighteen lots of cuttings of each fruit except the grape of which we have but six so far. Each one of these lots was further divided into two equal ones of twelve cuttings each. This division was made so that we could test them in two different temperatures. One bed had a bottom heat of about 77 degrees, while that of the other was about 64 degrees. The matter of callousing them before putting them in the bed. So while the first lot were put in the beds without callus a second lot just like the first, only larger in number, were put in sand in an inverted position to encourage callus formation. After three months of patient watching and care we noticed the first bed as failures and proceeded to put in the lot we had entrusted to the callousing pit for a time.

BOTTOM HEAT.

"The average bottom heat of these beds was about 77 degrees and 64 degrees, respectively. After we had filled these two beds in the same manner as the previous ones, we found that we could make good use of the surplus cuttings we had put in the callousing pit. Some people believed that if cuttings came into contact with some form of earthenware such as pots or tile they would root better. To test this, two beds Nos. 3 and 4 were made, one having a brick bottom while the other was an ordinary bottom serving as a check. Each of the three large fruits were further subjected to two treatments in pot culture. Six inch and three inch cuttings were inserted in the sand in such a way that the rooting end should come in contact with the side of the pot.

"Three year old trees of apple, pear and plum, and one year old of grape were forced in the house until they had new growth of sufficient length, when cuttings were made and intrusted to the various beds. Of these green cuttings we also put a few in the regular cuttings' bed of the Horticultural Department, in which begonias, chrysanthemums, fuchsia, etc., rooted readily.

"In the minds of some the cuttings would root best if kept in a close atmosphere, and a steady temperature. Such conditions are difficult to obtain in a large house heated by the regular heating plant which furnishes heat for all the other houses. A small bed was constructed, heated by a lamp, in which the temperature and ventilation were under the control of the operator.

"With all of the above devices as applied to the second lot of cuttings we gave the grape eighteen distinct treatments, and each of the other fruits forty-eight distinct treatments.

APPLES.

"When we took final notes we observed that in case of the apple all of the scion cuttings had failed to strike out. Of the apple root cuttings, in low bottom heat, of the six inch long and one-half inch diameter, five rooted; while of the one-fourth inch diameter the following number had rooted, of the six inch long, three cuttings, of the three inch long, two cuttings and of the one inch long one cutting. Of those less than one-fourth inch diameter the six inch long gave four rooted cuttings. All of the remainder of the cuttings in low bottom heat gave negative results. In the bed with high bottom heat of the one inch long and one-half inch diameter one rooted. All the rest were negative.

GRAPES.

"In the bed with low bottom heat we rooted four scions six inches long, four that were three inches long, and five that were one inch long. In the bed of high bottom heat, nine scions of the six inch long, five of the three inch long, and one of the green cuttings rooted. In the bed which serves as a check for the one with brick bottom, but one green cutting rooted, and in the department bed but four green cuttings rooted. All the rest were dead.

"The pear scion cuttings in all of the beds failed to strike. With the root cuttings it was slightly different. In low bottom heat, of the six inch long and one-half inch diameter, four rooted. In the bed of close atmosphere, of the six inch long and one-fourth inch diameter five rooted, and of the three inch long and one-fourth inch diameter one rooted. All the rest gave negative results.

PLUMS.

"None of the scions rooted. Of the root cuttings in low bottom heat one rooted, and in close atmosphere one. Both of these were of the six inch long and one-fourth inch diameter.

"In all, in this lot, we had 1,500 scion cuttings, of which thirty-three rooted, all of which were grapes. There were 748 root cuttings, of which thirty-one rooted, nineteen of which were apple, ten pears, and two plums. Of the total 2,249 cuttings in this lot only sixty-four rooted.

"This is not very encouraging. It is hardly to be hoped thus far that it can ever be of commercial value in general. The work first concluded leads me to think that if there is anything in it the secret must rest with the variety. I believe that some varieties will root more readily than others. The Parry Pomona Nursery has Kieffer pears on own roots, grown from cuttings. They send their cuttings south about the beginning of the year and have them rooted there. They send south to get a longer season.

STUDY OF VARIETIES.

"We have taken up the study of varieties now. We use at present cuttings six inches long and of the current season's growth. We use two beds, one of good bottom heat, and one without bottom heat. When the cuttings are made they are inverted in a box of moist sand, and all covered up. This is done to develop callus. As soon as callus is as well developed as possible they are put in the beds, leaving only about an inch of the top exposed. In this way, the past winter, we tested some fifty varieties of plums, twenty of pears, five of apricots, and three of peaches. We used 2,966 cuttings in all, of which eighty-five rooted. Of these, in high bottom heat, fifty-five were plum and four pears; while in no bottom heat twenty-six were plums while the pears were negative. The apricots and peaches were likewise negative.

"In the bed with no bottom heat there was an enormous callus development on Clapp's Favorite, Tyson, Vermont Beauty, Summer Doyne, Boussack, and Lawrence pear. On Louis Bonne, Sheldon, Howell and Duchess, there was an unusual callus development, but not to such an extent as in the former.

"There are yet many things to be considered before we utterly condemn the subject. Different ages of the scion may have considerable to do with it. Growing them in beds out of doors has been in our mind for some time and will be tested as soon as circumstances will permit. The length of the cutting may yet be of more prominence than we think. The mode of inserting them in the bed may be a secret worth knowing. Thus there are yet many ways to be studied before we can give definite results."

The Seasons' Fruits.

WORDEN SECKEL PEAR—Smiths & Powell Co., Syracuse, N. Y., are receiving high praise for this seedling of the Seckel raised by S. Worden, Minetto, N. Y. The Storrs & Harrison Co., say it is of superb quality; George T. Powell, "one of the greatest acquisitions to the pear supply of recent years;" Hoopes, Brother & Thomas, "almost if not quite as good as its parent, that famous old standard of excellence."

CHARLTON GRAPE—John Charlton & Sons, Rochester, N. Y., have originated a cross between the Brighton and Mills grape which has fruited during the last six years. They claim that it is superior to Brighton in every respect, a stronger grower, setting a full bunch of fruit under all circumstances, the fruit being of good size, juicy and sweet, skin thin but firm and fruit not deteriorating in quality after becoming ripe. No vines are yet for sale. After another season's testing it may be offered to the public.

In Common Council.

Editor NATIONAL NURSERYMAN:

I have to-day read nearly every word with care in your November edition and truly I must say I believe it to be the best edition ever published. It digests everything it takes up and surely it is instructive, encouraging and inspiring. What a world of good and inspiration such a volume can disseminate. Oh, that I were a Bailey, Lyon or a Garfield! I would embark in the publication of a juvenile horticultural primer or primary journal that would instruct the children, encourage the sluggard, stimulate the weak and herald the success of the diligent; revolutionize this shiftless apathy, reach the homes of the "cant grow fruit" farmers; encourage the planting and better care of more fruits, God's elixir of good health.

Am pleased to say that Wisconsin has just harvested the best and largest crop of apples she ever grew and your humble servant has been rewarded with his share, amounting to 3,500 bushels. Prices have been very satisfactory for everything except very early and inferior stock, and I am to-day shipping fine N. W. Greenings (a Waupaca Co. seedling) at \$3 per barrel to Iowa, Indiana and Illinois.

Northern Wisconsin is in it this year and we cordially invite our eastern friends who are in search of a home and location, to inspect our beautiful valleys and valuable hill ranges, crystal streams and silvery lakes, where lands are cheap, markets good, society of the best; where potatoes are kings, luscious apples are queens, San Jose scale never known, blight almost a stranger; where peace, plenty and happiness are assured to the diligent and faithful. We are all prosperous, healthy, happy and contended this year.

The nursery business is very good and prices fair. Prospects for spring sales are very good indeed and our county has the best math of clover ever grown. Rainfall has been very bountiful and the earth in best condition to respond generously next season.

We extend our hand and best wishes to all readers of this valuable journal.

Waupaca, Wis., Nov. 7, 1898.

A. D. APPLETREE BARNES.

KNOWS WHERE TO ADVERTISE.

STANLEY H. WATSON, SUCCESSOR TO WILLIAM WATSON, BRENHAM, TEXAS, Nov. 14, 1898—"No, it will not be necessary for you to carry the advertisement over for another issue, as we have found what we were looking for; in fact, we placed our order for the Mulberries we were short, within three days after the receipt of our copy of the paper. Enclosed find check for \$2.00 to pay for card. Keep my name in mind, wont you? I may have to wire you other cards if I want to find something without wasting a lot of stamps and time, and stationery."

FIND WHAT THEY WANT THERE.

THE WICHITA NURSERIES, W. F. SCHELL, GENERAL MANAGER, WICHITA, KANSAS, JAN. 6, '98—"Enclosed please find check for \$10.80, to balance our account as per bill rendered. We desire to add our testimonial in favor of the NATIONAL NURSERYMAN as an advertising medium. Our nurseries are new, and there are many things we desire for spring planting. We always find them in your magazine, as, for instance, yesterday, we wanted some 2-ft. Mt. ash for lining out, and found where we could get them in your journal. In our opinion every nurseryman should subscribe and advertise in the only paper which represents all the nurseryman. We wish you success."

Among Growers and Dealers.

M. J. Wragg, of Waukeg, Ia., will reside in Des Moines.

D. S. Lake, Shenandoah, Ia., has built a cellar, 56 x 110 feet for the storage of nursery stock.

J. W. Cogdall, Springfield, Ill., has 100,000 raspberry tips and other small fruit plants for spring planting.

Detroit park commissioners propose to devote considerable attention to the planting of trees and shrubs next year.

President J. M. Underwood of the Jewell Nursery Co., Lake City, Minn., especially advocates the planting of plums.

The largest apple at the Trans-Mississippi exposition was of the Wolf River variety. It weighed a pound and a half.

Minnesota nurserymen complain of the Canadian exclusion act. They have nursery stock that is wanted in Manitoba.

Joseph H. Dodge, of the firm of George Moulson & Co., Rochester, N. Y., on November 15th married Miss Elizabeth McGuire.

United States Pomologist Brackett is co-operating with the American Pomological Society in a revision of the fruit lists of the country.

The park commissioners of Chattanooga, Tenn., planted 3,000 silver maple and 1,000 Carolina poplar trees on public streets this fall.

Walnut growers in California are preparing to crack the nuts and can the kernels, to be shipped east, where they will be used in making candies.

D. W. Leib & Son, Anna, Ill., write: "Our business is improving somewhat over last season. We find collections easier to make than last fall."

The Stuart Pecan Co., Ocean Springs, Miss., offers inducements to a man who can graft pecan trees at the crown during January, February and March.

Los Angeles County, California, is sending George Compere to Hawaii in search of a parasite which will destroy purple scale in nurseries and orchards.

Applications for scholarships for garden pupils of the Missouri Botanical Garden, should be sent to the director, Dr. William Trelease, St. Louis, Mo.

George Morton Chase, son of George H. Chase, of the Chase Nursery Co., Malden, Mass., on November 2d married Miss Anna B. MacKeown, of Boston.

The Southern Nursery Co., of Winchester, Tenn., has purchased the Price Luner farm of 265 acres at Adairsville, Ga., which they will set to peaches, apples, quinces and plums.

C. H. Joosten, wife and sister, New York city, returned from Europe October 31st, after an absence of two months. They visited many places in Holland, Belgium and England.

Ellwanger & Barry, Rochester, N. Y., exhibited 36 varieties of pears at the Morristown, N. J., show last month. This firm in November shipped 102,000 Downing gooseberries in one order to Iowa.

A writer in the Florists' Exchange suggests that the annual meeting in 1900 of the Society of American Florists be held in Paris or on a steamer en route to the international exposition at the French capital.

S. D. Willard, Geneva, N. Y., considers Cox's Orange Pippin apple the finest dessert apple grown in this country, grown in the fall. It is highly prized in England and it is suggested that it would be profitable to grow this variety extensively.

Alvin H. Dewey, prominent for years as a republican official of Rochester, N. Y., has accepted a responsible position with Brown Brothers Company. Mr. Dewey has served several terms as member and president of the Rochester Common Council.

The partnership between John R. Parry and William Parry, of Parry, N. J., has been terminated by the death of William Parry. Outstanding accounts will be settled by John R. Parry who has sold his interest in the nursery business to C. H. Parry.

Articles of incorporation have been filed for the Chase Nursery Company, Riverside, Cal., with a capital stock of \$50,000, taken in full by E. A. Chase, H. B. Chase, M. A. Chase, Augusta Chase and Mary Chase, who form the board of directors.

Frederick W. Kelsey, importer, of New York city was struck by an electric car in that city, November 7th. His left arm was broken in two places, the ligaments and muscles of his right wrist were lacerated and one knee was cut. No internal injuries developed.

George G. Gleason, superintendent of Irving Rouse's extensive nurseries, at Rochester, N. Y., sailed for Europe on November 11th in the interests of Mr. Rouse. He will spend most of his time abroad in France and England. Superintendent Gleason has made four similar trips.

The State of Kansas has 7,272,324 apple and 3,941,217 peach trees. Reckoning fifty trees to the acre, this means 224,270 acres devoted to these two varieties of fruit alone. Secretary Barnes, of the State Horticultural Society, estimates the present producing capacity of Kansas apple orchards at 5,000,000 bushels.

W. N. Scott, the state entomologist of Georgia, says that San Jose scale exists in 24 counties in the state, involving 134 separate premises, and that over 100,000 trees have been dug up this year on account of the scale. Of the remedies suggested, he considers the kerosene treatment best. Pure kerosene is highly injurious to plants. It must be diluted with water.

THE BISMARCK APPLE.

Professor N. E. Hansen, Brookings, S. D., says of the Bismarck apple: "While in Europe in 1894 I saw the Bismarck in bearing on one year trees on the grounds of the introducer J. G. Schmidt, Erfurt, Germany. This apple was introduced from Australia and the planting of apple seed in a strange land in this case resulted in changing materially the resulting seedling. Nearly every tree in a block of several thousand one year old trees in nursery bore an apple and many bore several. Some I measured were twelve inches in circumference. It was too early in the fall to judge of the quality. Some of the trees had already been ordered for fall delivery by an American nurseryman. One year trees imported direct from Germany survived the past mild winter at Brookings and I hope will be ready for experiment in crossing, and other experiments next year."

NELSON BOGUE.

The founder of the Batavia Nurseries was born in Elba, N. Y., in 1844. His first efforts in life were to obtain a thorough and practical education. After graduating at the State Normal School in Albany in 1865 he taught school for three terms, and then began to lay the foundation of one of the most complete and best equipped nurseries in the state. Not owning a rod of land he leased an acre here and there and commenced planting. Business kept growing and acres kept increasing until there are now several hundred drawn on for nursery purposes.

His collection of large and small fruit is very complete and his trial grounds are intended to take in specimens of every thing desirable, of both old and new sorts. The object is to test and to hold the good and discard the bad. Here also have been grown for many years a high grade of ornamental trees and shrubs, for park and boulevard planting, to supply a trade of immense proportions.

Mr. Bogue has not been content with a careful observation and study of the methods of the American nurseryman; but has traveled extensively in England and on the continent, with a view of getting more knowledge covering the selecting, propagating and growing of superior nursery stock.

He has been prominently connected with both the agricultural and educational interests of his county and state; has served as secretary and president of the Genesee County Agricultural Society and as member of executive committee of the New York State Agricultural Society, and is now and has been for several years, member of the executive committee of the Western New York Horticultural Society. When Mr. Cleveland was governor he appointed Mr. Bogue a trustee of the State School for the Blind at Batavia for a term of six years, and he is now serving his sixth year of a like appointment from Ex-Governor Flower.

Mr. Bogue is a lover of rural life and rural things, and although personally directing the management of his large nursery interests has found time to gratify his desires to engage extensively in the breeding of the light, trappy and beautiful Morgan horse, and to add to his surroundings, deer-parks, fish-ponds and other features to make his home attractive and happy. He enjoys life none the less because he is a bachelor, for care rests lightly upon his shoulders.

STARK BROTHERS' NEW OFFICE.

The increasing business of the Stark Brothers' Nurseries and Orchards Company made necessary large office accommodations. The company has just settled down in its new office building at the home grounds, Louisiana, Mo. The structure

is of brick and stone with metal roof and is practically fire proof. The dimensions are 60 feet east and west by 102 feet north and south. It is one and one-half story, the first story being 12 feet high, the second 9 feet. Each floor comprises about 4,000 square feet of space, making in all 8,000 square feet. The first floor is devoted exclusively to the offices of the company, the second floor being used for the storage of records, files and the vast assortment of stationery, circulars, fruit books and reading matter annually sent out by the company to farmers and fruit growers in every part of the world.

The plan of the building comprises one main large room 40x60 feet in extent, with front and rear wings; the former 16x32 feet the latter 30x32 feet. Another wing added to the rear, 8x17 feet, contains 3 divisions—a rear hall and the two closets. The front wing is occupied by C. M. Stark, E. W. Stark and W. P. Stark, respectively the president, vice-president, secretary and treasurer of the firm. The large room contains

the offices of Judge Eugene Stark, Eugene Duncan, the heads of the different departments and all the mailing clerks and subordinates. The rear wing is divided into 3 parts; a fire proof vault 12x20 feet, a ladies dressing room 10x12 feet, and the printing room 20x30 feet.

A MODEL PARK.

Peter Barr, the noted botanist of England, a Victorian medalist, who is making a tour of the world, visited Rochester nurseries and parks last month and highly praised their many attractive features.

Of Highland park in which Ellwanger & Barry have been especially interested, Mr. Barr said: "I visited it three times in three days, and if I were to stay here six days longer I should visit it six times more. It is an inexpressible pleasure. Those beds of flowering shrubs arranged in some fifty odd families, with all the varieties and species that can be secured are remarkable. I venture to say that there is not another place in the United States or out of it that will compare with it. I was fairly startled by it. Its natural conformation of hills and dales all tumbled about is charming. The effect is beautiful, and what will it be ten years hence? Every year it will go on improving. There are many rare coniferae there, and if additions are continued you will have a pinetum perhaps unequalled in the world. You have the men with the knowledge, if they are only provided with the means."

A PLEASANT ANNIVERSARY.

Eighty-two years ago, on December 2d, George Ellwanger, the well-known senior member of the firm of Ellwanger & Barry, was born in Germany. In 1835 he came to Rochester, N. Y., unknown. The observance, this month, of the anniversary of his birth, participated in by some of the leading citizens of the Flower City, was made most enjoyable by the good cheer and interesting reminiscences which prevailed. The veteran nurseryman and financier is daily at his desk and enjoys his constant association with his life work.



NELSON BOGUE.

The National Nurseryman.

C. L. YATES, Proprietor.

RALPH T. OLCOTT, Editor.

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 Drafts on New York or postal orders, instead of checks, are requested.

Correspondence from all points and articles of interest to nurserymen and horticulturists are cordially solicited.

AMERICAN ASSOCIATION OF NURSERYMEN.

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Annual convention for 1899—At Chicago, Ill., June 7, 8.

Entered in the Post Office at Rochester, as second-class matter.

ROCHESTER, N. Y., DECEMBER, 1898.

CREATING A DEMAND.

We have frequently called attention to numerous agencies at work, aside from the nurserymen's efforts, to create a demand for nursery stock. Surely such agencies should be appreciated. In another column is published information regarding the Tree Planting Association of New York City. We presume many of our readers have not known what was being done to improve the appearance and comfort of the metropolis and at the same time create a demand for certain classes of nursery stock. The fact that the leading nursery firms of the country are interested in the subject proves the importance which at the very outset would seem to attach to it. The opportunity for encouragement of the plan lies not so much in the earnest endeavors of the promoters in New York as in the fact that similar interest, proportionately, could undoubtedly be aroused in the large cities throughout the Union.

That intelligent and well-directed effort can overcome the various obstacles to the growth of trees in the streets of great cities, says Frederick W. Kelsey, the well-known nurseryman of New York, has been demonstrated conclusively, not only in Washington, but in London, Paris, Vienna and other cities where the immediate surroundings have been as unfavorable to the life and development of trees as occur in the avenues and streets of Greater New York. The beautiful effect produced by the lines of Oriental planes (*Plantanus Orientalis*) on the Thames Embankment, London, is a case in point.

The poor soil, pavements, gases and artificial heat incident to city streets are all deleterious and detrimental conditions for normal tree development, but there are only a few locations where these difficulties cannot be overcome sufficiently to insure successful growth. The wonderful success of the 70,000 street trees in Washington, planted in almost every conceivable location as to soil and exposure, is a practical demonstration of this statement.

It is true, owing to lack of legislative authority, no comprehensive plan of tree-planting improvements, such as have been so successful in Washington, Minneapolis and other cities, can be inaugurated as yet in New York, but the commendable efforts of the Tree Planting Association mark a step in the right direction. Individual effort and public agitation in this, as in other matters, must be the initiative of better things and improved conditions to follow.

The haphazard way in which much of municipal improvement is undertaken grows out of a lack of attention to important conditions when the plans are made and executed. There is apparently no good reason why the residential streets in this city and every other city should not have been properly planted, or should not now be planted concurrently with the carrying out of other improvements.

In some of the states the desired results of better street planting conditions have been sought by appropriate legislation. In some cases, as in Minnesota, authority is vested in the Municipal Park Commission to plant trees on any street and assess the cost of the same on abutting property owners. In New Jersey a law has been enacted conferring upon a commission to be appointed by the local authorities the power to plant and care for street trees, and apportion the cost much as streets are laid out and similar improvements made under city and borough charters.

DEFORESTING A MENACE.

Elsewhere in this issue mention is made of the tour of Peter Barr, the noted horticulturist of England. For sixty years he has labored successfully in horticultural pursuits and now he is circling the world to add to his great store of knowledge and enjoy the rest he has so well earned. His faculty for observation, broad views and large experience make his opinions of special value.

During his visit to Rochester, Mr. Barr referred to the admission made to him in the department of forestry at Washington, that practically nothing was being done as yet in the way of reforestation and spoke with some feeling of the utter inadequacy of the Arbor Day tree planting exercises to meet the condition.

Why should not nurserymen take up this important subject and urge the planting of forest trees? The subject might well

form a part of the programme of the next convention of the American Association. Mr. Barr suggests that tree nurseries be established, why should not the nurseries already established supply the stock? Let the state authorities advertise for bids and award the contracts to the lowest responsible bidders. Mr. Barr says:

I have been scattering the seeds of reforestry all along my path in my tour of this country. The reckless destruction of your forests without replacing them will lead to untold disasters. It is no use trusting to individuals for this work. Individuals cannot and will not do what is necessary. It is the duty of the state, and the state conscience will have to be reached. It all amounts to a matter of self-preservation, and the state should take it up with that end in view, and also with a view to profit. To do this most effectively laws will have to be passed overriding the rights of individuals. Individual rights are very excellent, but individual rights have no standing on the pedestal of the public good.

I would suggest that tree nurseries be established in various parts of the state, and the plants raised from the seed, the entire work supervised by men of experience. The timber planted should be that which is in the greatest demand, and brings the most money as lumber. This should be done in the state of New York and in the neighboring states, before there is lost the moisture in the atmosphere which is created by vegetation.

The western part of the United States, unless something is done quickly, will become a howling wilderness, and, like Spain, it will become a country with rivers without water. The present generation has it in its power to remedy the evil that has arisen from the destruction of forests during the last fifty years through fires, sometimes unavoidable, but frequently from the avarice of sheep farmers to get grass for their stock.

Original forests have been destroyed, and the seedlings that have come up and formed a new forest have again been destroyed before they have matured seed, and then a wilderness has followed. Your great prairies, which are subject to hot winds and suffer from a lack of water, could be made very fertile by several miles of forests being planted every fifty or one hundred miles. In my travels I have seen evidences of prodigious forest destruction.

The conscience at Washington should be equally aroused to the state conscience, and ways and means found to make this a grand country; beautiful and profitable to all interested in the well-being of future generations.

A writer in the Botanical Magazine asserts that bacteria dwell even upon hailstones, averaging nearly 1,000 upon each piece of ice! But there is hope for the nurseryman, for a circular has been industriously circulated in Indiana describing an insecticide which, it is claimed, will prevent fruit from rotting or from falling from a tree or bush, will prevent borers of all kinds and curl leaf, destroys every known insect injurious to vine, shrub or tree, is sure death to the San Jose scale is "a great tonic for chickens and pigs." The only claim left out is that it will prevent surplus of nursery stock.

There are men of much prominence in the nursery business, men who are recognized as leaders in many ways not only in the communities in which they live, but beyond their state boundaries. We take pleasure in announcing that W. E. Stanley who heads the list of directors of the Wichita Nursery Association, Wichita, Kan., was last month elected governor of Kansas on the republican ticket. Another director of the same association, and its secretary and treasurer, W. F. Schell, is prominent in state politics, being the chairman of the republican county central committee.

The Horticulturists' Lazy Club, of Cornell University, to which we have referred and of which our readers will doubt-

less hear more, is the outgrowth of gatherings of a few advanced students at the residence of Professor L. H. Bailey in 1895-6. The club room is a lounging place 20 feet square, in conjunction with the forcing houses. A blackboard and a stereopticon and files of fifty horticultural periodicals are made use of freely.

Among the members elect of the Connecticut legislature is James Hoyt, senior member of the well-known firm of Stephen Hoyt's Sons, New Canaan. Mr. Hoyt is in his seventieth year, and never held a public office before.

CALIFORNIA FRUIT GROWERS.

The twenty-third session of the California Fruit Growers Association in progress at Fresno includes a discussion of fruit and tree pests, tree and plant diseases, remedies therefor; state and national legislation for suppression of fruit pests and diseases, and legislation to prohibit the sale of infested and unwholesome fruit.

SUBSCRIPTIONS.

Subscriptions for the NATIONAL NURSERYMAN for 1899 are due next month. The journal will be more attractive with each succeeding issue. That has been its record, frequently noted by subscribers, and it will be maintained. All the news for nurserymen. A business journal for the trade. One dollar per year. Examine it thoroughly and see if you can afford to be without it.

WEST INDIAN TOUR.

F. G. Withoft, Dayton, O., is forming a party of gentlemen for a tour through Florida, Cuba and Porto Rico this winter. Mr. Withoft has conducted several similar trips with marked success. One can make the whole tour or such part of it as he wishes. The trip to Havana may be made in about two weeks, and the whole in four or five, as pleases the individual or the company. The cost will be surprisingly small.

THE LAWS COMPILED.

In response to the request of subscribers, the National Nurseryman Publishing Company has compiled the laws of all the states affecting the interests of nurserymen. Nineteen states have passed such laws and in three states there are proposed laws. All are given, together with the special rules and quarantine regulations, forming a most valuable record regarding inspection, sale and transportation of nursery stock; a necessity in every nursery office.

The federal San Jose scale bill, the Canadian exclusion act and the Ontario and British Columbia scale laws are given; also the nursery schedules of the United States and Canadian tariffs.

The whole is offered at the low price of 25 cents postpaid. Orders should be sent early to the National Nurseryman Publishing Company, 305 Cox Building, Rochester, N. Y.

AS TO TRADE MARKS.

Proposed Copyright Law for the Protection of Introducers of Varieties of Trees or Plants—The Late Judge Coe's Suggestion Endorsed by Assistant Pomologist W. H. Taylor—As to Varieties Already Produced.

The present copyright law, contrary to the opinion of some, gives no authority for copyrighting a variety or the mere name of a variety. The introducer is protected in the use of the particular illustrations and descriptive matter which he may copyright and publish concerning a variety; but the propagation or sale of a variety cannot be restricted or the use of its name by the general public be prevented.

In a discussion of this subject in the Rural New Yorker Assistant Pomologist W. A. Taylor says:

"Since the enactment in 1881 of the law which authorized the registration and protection of trade marks, a number of nurserymen have sought protection as it afforded. This they have secured by registering, as a trade mark, the varietal name or some picture or device, of which the name is usually a component part, either printed in plain letters or stated in the form of a rebus, as was done for the Wonderful peach. Considered from a purely technical standpoint, there is, apparently, no doubt that a trade mark properly registered is as applicable to a plant variety as to any other commodity offered for sale. If the trade mark consists simply of the varietal name, the owner of it, undoubtedly, has as good a right under the statute to the sole use of that name when applied to trees, cuttings, scions, etc., of that particular variety in commerce, as any manufacturer has to his trade mark name. But so far as restricting the purchaser from propagating the variety is concerned, the trade mark is absolutely ineffective. There seems to be nothing to prevent him from propagating the variety at pleasure for his own use, or for sale, under any other name than that registered, unless he expressly gives up this right by signing an agreement to that effect.

"This is the weak point of the present trade mark law so far as the originator and the introducer are concerned. Various plans for the strengthening of the law have been suggested, at different times. One of the simplest and, apparently, most practical of these was that proposed by the late A. J. Coe, of Meriden, Conn. It was embodied in the following bill introduced in the Senate December 30, 1895, by Senator Platt, of Connecticut, and referred to the committee of patents.

A bill amending chapter two of the revised statutes relating to trade marks.

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled: That any person who, by planting or causing to be planted seeds of any tree or plant, or by other means, has originated or produced or shall hereafter originate or produce any new variety, shall himself or his heirs or assigns, or any purchaser or purchasers of the exclusive title, have the right to name such variety and to register such name in the manner provided for the registration of trade marks. And the provisions of all statutes for the protection of trade marks shall be extended to include the protection of such name so registered. And it shall be unlawful for any person to sell or disseminate said variety under another name, representing it to be the variety so named and registered.

To be entitled to registry, such name shall consist of the generic name and a distinguishing word prefixed.

The provisions of this act shall, in case of varieties already produced, apply only to such varieties or products as shall be at the time it takes

effect still exclusively in the hands of such originators or their representatives or of purchasers of the exclusive right thereto.

"In an interview with the writer, Judge Coe, not long before his death, expressed the belief that the provisions of this bill were sufficiently comprehensive, if enacted into law, to afford sufficient legal protection to plant originators and introducers, and that its enactment would enable them to secure a fair proportion of the profits resulting from their labors. While petty theft and evasion would, no doubt, continue, he believed that, under such a law, plant originators would have a legal standing in court which would enable them to defend their property rights in new varieties, and to prevent open and flagrant usurpation of them by responsible persons and firms."

JACOB MOORE ON TRADE-MARKS.

One of the most persistent advocates of trade-marks for plants and trees to protect the originator is Jacob Moore, Vine Valley, N. Y. In a communication to Green's Fruit Grower he says: "It has often been asserted that patents should be given for new varieties of fruits as well as mechanical devices. Analysis, however, shows that in its entirety the law will not fit the case. The words of the patent to manufacture and use are indefinite terms as applied to plants. Using a fruit-tree or strawberry plant for instance would be growing it and that would be manufacture; that is to say more branches, buds and fruit would be produced by the fruit tree, and more plants by the strawberry. Then what would be the use of an ornamental plant? Adornment, of course. Using a machine is operating it, which does not result in making the machine itself. Hence it is clear that other terms must be employed in the statutory protection of products of the soil. Besides there are other obstacles in the primitive provisions of the law of patents that need not be pointed out. Making the name of new fruit a trade-mark also, in order to protect the sale of the plants will not work. The trade-mark would not permit increase of the number of plants by growers, nor would it permit the use of the name to sell the marketable product. That I think would be a natural right if the grower had bought the right to grow the plant of the lawful introducer. Then how could a trade-mark of the name be applied to such a thing as a cereal or potato where there is no plant for sale apart from the product? It would cut off the market.

"In dealing with this subject the plant's connection with the soil is an entirely new factor to be considered with which the patent, trade-mark and copyright laws have nothing to do. Perennial fruit bearing plants are set out to remain and become a part of the real estate on which they are situated. Given to the originator of a new variety the exclusive right to grow the plant which he should have in order to prevent others from appropriating the benefit of the variety—pecuniary or otherwise—without compensating him, he would necessarily have to specify the piece of land on which it was to be grown and convey said right to the owner thereof in writing in order to trace his variety. He would have territorial rights to sell therefore the same as the owner of an ordinary patent. The inability of false labellers to grant the conveyance mentioned would prevent them from labelling plants of common varieties with the names of protected new ones. Consequently the protection of the originators would be the protection of planters against frauds."

Recent Publications.

The Cornell Agricultural Experiment Station has published bulletins on "The Quince Cureulio" and "Some Spraying Mixtures."

A new edition of Professor Bailey's "Principles of Fruit Growing" has a chapter devoted to the subject of describing and classifying fruits. The preface written from Europe compares European and American fruit growing.

Among recent United States Department of Agriculture bulletins are: "The Periodical Cicada," pp. 148, by C. Marlatt; "The Larger Apple-tree Borers;" "Principal Poisonous Plants of the United States;" "Some Edible and Poisonous Fungi;" "Changes in Railway Rates."

The weekly publication known as American Gardening, which, since October, 1893, has been owned and published by the A. T. De La Mare Printing and Publishing Co., Limited, was, on October 24, 1898, sold to James W. Withers, with the Florists' Exchange for the past five years, who will publish American Gardening hereafter, Leonard Barron continuing as editor.

The Youth's Companion is sent to half a million homes every week and is read by young and old. The best of fiction, poetry, sketches of travel, instructive articles, comment on current events and selected miscellany and anecdotes fill its columns from week to week and from year to year. The publishers promise that the volume for 1899 will surpass all former ones, in variety, interest and value. Among the two hundred distinguished contributors already engaged are Hon. John D. Long, secretary of the navy, Edward Everett Hale, Henry M. Stanley, Sarah Orne Jewett, W. D. Howells, Poultney Bigelow, Herbert E. Hamblen, Hon. Carl Schurz, Rt. Hon. James Bryce, John Burroughs, Robert Barr, Thomas Nelson Page, Bret Harte, William Black, Alfred Austin, Andrew Lang and Dr. William A. Hammond. All subscribers to the 1899 volume will receive The Companion's new calendar, exquisitely colored, with a border of stamped gold. Boston: THE YOUTH'S COMPANION, 211 Columbus ave.

"Bush Fruits; a Horticultural Monograph of Raspberries, Blackberries, Dewberries, Currants, Gooseberries and other Shrub-like Fruits," by Fred W. Card, professor of Horticulture in the Rhode Island College of Agriculture and Mechanic Arts, and horticulturist to the Experiment Station, has just been issued by the Macmillans. Nurserymen will remember Professor Card as having read papers before the American Association, of great interest, while he was professor of horticulture in the University of Nebraska. The book is one of the Rural Science Series edited by Professor L. H. Bailey. It is the first of a series of monographs on the various types of American fruits. The aim, says Professor Bailey, is to treat general truths and principles rather than mere details of practice; to enable the reader to think out local problems for himself, the very thing needed by the nurseryman. The domestication of the bush fruits is one of the most recent developments of American horticulture, and the subject is all the more interesting because all the important types excepting the currant, are evolutions from the species of our own woods. Cloth. Pp. 549. Illustrated. \$1.25. New York: THE MACMILLAN CO., 66 Fifth ave.

The nurserymen of the country welcome Professor L. H. Bailey who has returned from a trip to Europe. That he has been busy during his absence is evidenced by the frequency with which he has been heard from since his return. Almost as soon as he arrived there appeared from the Macmillan Company, New York and London, his entertaining and instructive volume entitled "Sketch of the Evolution of Our Native Fruits." In his preface which is dated Munich, Germany, April 18, 1898, Professor Bailey says that three motives run through the book: An attempt to expound the progress of evolution in objects which are familiar and which have not yet been greatly modified by man; an effort to make a simple historical record from unexplored fields; a desire to suggest treasures of experience and narrative which are a part of the development of agriculture and from which the explorer must one day bring material for history and inspiration for story. Such a volume must surely be of the greatest interest to nurserymen. The studies were begun ten years ago; their prosecution required much travel including a visit to European herbaria in which the types of certain species of plants are deposited. The book is in-

tended as a companion to the author's "The Survival of the Unlike." Its contents include chapters on "The Rise of the American Grape," "Strange History of the Mulberries," "Evolution of American Plums and Cherries," "Native Apples," "Origin of American Raspberry Growing," "Evolution of Blackberry and Dewberry Culture," "Various Types of Berry-like Fruits," "Various Types of Tree Fruits," "General Remarks on the Improvement of Our Native Fruits." Cloth, pp. 485. Illustrations 125. \$1.50. New York: THE MACMILLAN CO., 66 Fifth avenue.

BAST OR RAFFIA.

Regarding these terms the Gardeners' Magazine of London, England, says:

Bast is the strips of the bast fibers, or inner bark of the Lime Tree, and consequently was formerly known as Linden Bast, the Lime (*Tili europæa*) being often known as the Linden Tree. This material is now seldom used for tying purposes, having been superseded by raffia. Raffia, raffia, or raphia, is obtained from a Madagascar Palm (*Raffia Ruffia*), also from *Raphia tædigera*, and is the cuticle stripped from huge fronds of these giant palms. Some of the palms in our West African dependencies yield a raffia, and probably a considerable industry will arise in this direction; at present Madagascar supplies almost the whole of the raffia of commerce. The old name of "bast" is in some gardens still applied to raffia by old hands.

FALL DUG TREES.

W. B. Cleves, Broome Co., N. Y., writes in Rural New Yorker: "I received a lot of peach trees from a northern nursery last November, and heeled them in on a dry southern slope, covering the roots and about one foot of the stems. I set them out last spring, and did not lose one. After planting, I cut them back to about 20 inches. I received at the same time apple, pear, cherry, plum and quince trees, treated all alike, and have lost but one apple, one pear, and ten cherry trees out of about one thousand trees. The spring was very favorable, rains continuing until after planting was accomplished. About fifty trees were planted out in the fall, and these seem to have done no better than those kept over winter. Last spring, I got apple trees from cold storage, from a prominent nursery company, and 15 per cent. of these are dead. Locality, Broome County, Southern New York, altitude 1,500 feet, soil clay loam, exposure both northern and southern."

Obituary.

William Cavers of the firm of Cavers Brothers, Galt, Ontario, died suddenly November 4th, aged 39 years.

Robert Bowne Parsons, who was killed at Flushing, L. I., on November 1, by a railway train, was formerly a well known nurseryman. In 1875 he retired from active work, at the time that his brother, the well known Samuel B. Parsons, with whom he had been in partnership, established the now famous Kissena nurseries. In 1840 Samuel Parsons established a nursery business for his sons, Robert and Samuel. They conducted an extensive business. Both Robert and Samuel B. Parsons made frequent trips to Europe to examine the nursery stocks there and made wide selections which they introduced into America. The firm also became interested in the trees of Japan and they were probably the first to introduce them to America.

A LAND OF FRUITS.

*Some Impressions of Our Fruit Growing Industries, by an Expert
—Result of Five Years of Special Study of Conditions—
America's Great Advantages—Problems in Marketing—
Overproduction in Certain Fruit Products.*

There has just been issued by the horticultural division of the Cornell University Agricultural Experiment Station an interesting bulletin by Professor Bailey, entitled "Impressions of Our Fruit Growing Industries." In it Professor Bailey says :

Some years ago, the writer was asked to undertake an investigation, on behalf of the state, of the fruit growing of New York. An attempt was made to determine the extent and condition of the industry, to discover the leading difficulties, to devise means to combat insects and fungi, and, by means of lectures and publications, to give advice to fruit growers. As a result of the inquiries, there have appeared, by various persons, 34 bulletins, covering most of the fruits which are commercially grown in the state. In the progress of these investigations, it became apparent that there are "greater problems in our fruit growing than those of soil and insects and diseases, that fruit growing is profitable or not, in the long run, in proportion as it meets the general requirements of trade and conforms to the agricultural status of the time. It became apparent, also, that even the immediate problems of fertilizers, tillage, and handling of a plantation cannot be fully understood from mere scientific investigations at a given place. The investigator must correlate and compare the results of actual fruit growing in many places and under many conditions to be sure that he arrives at broad and sound conclusions, or at principles. With this thought in mind, an effort has been made, in the last five years, to determine the underlying reasons for some of the successes and failures of the fruit grower, by studying the actual experiences of fruit raisers ; and some of the summary conclusions of this inquiry are given herewith. Such conclusions are necessarily colored by the personality of an author, and the writer must therefore say that they are meant to be expressions of general truths rather than statements of specific facts, and that he cares less whether they are accepted by the reader than that they shall suggest his thinking out his problems for himself.

A LAND OF FRUITS.

The fruit growing interests of the United States are very large and are rapidly expanding. Of some fruits we are already raising more than we consume, and we therefore find a market abroad ; and if we are to compete in foreign markets, we should know something of the conditions under which the fruits of our competitors are grown. In other words it is important that we understand why America is a land of fruits.

1. America is a land of fruits because, for one thing, its agriculture is so recent and so little bound by tradition, that the farmer feels himself free to discard old and unprofitable enterprises for new and relatively profitable ones. In the unrest which has come from agricultural depression, the newer and less worked business of fruit growing asserts itself over the old-time agriculture. It does not follow, however, that fruit growing will be the more lucrative business. In fact, it is possible that it may come to be over-crowded. But its rise has relieved the over-worked old line farming, and, as a whole,

has been a blessing both to those who went into it and those who remained out of it ; and it has exerted a most important secondary influence in diffusing new knowledge and thereby in educating the people.

2. Again, North America is the leading fruit growing country of the world, because large areas are available for the business. Fruits are grown on a large base, and in wholesale quantities. This means that they are grown cheaply and that the product is of sufficient quantity and uniformity to attract the attention of the market. This is illustrated in a smaller way by comparing the two sides of the continent: California fruit is often able to drive the eastern fruits from their own markets because it is in larger and more uniform supply and thereby controls the market. It is the large base upon which American fruit growing is established which enables it to enter European markets.

COMPARISON WITH EUROPE.

3. Political and social conditions are essentially uniform in all parts of the country, allowing of a free interchange and comparison of ideals and methods. In Europe, the various fruit growing centers are apt to be unique. The business is the outgrowth of years and centuries of local effort and tradition. There are difficulties or barriers of races, languages, political systems, and physiographies. Uniformity of methods and results on a large base is practically impossible. In North America, we speak one language and live in practically one variety, if need be, and growers work towards a common end.

4. The climate of North America is congenial to fruits.

5. The American farmer has more help from teachers and experimenters than other farmers have. A fundamental idea of our agricultural colleges and experiment stations is to reach the very man who tills the soil. The teacher and the farmer are in most intimate contact. As a consequence, the fruit grower quickly assimilates new methods. He is not fettered by tradition. He is bold and confident. He feels that he controls his own efforts and destinies. He receives help at every doubtful point. The result of all this is that the general tone of agricultural business is rising, and the farmer is feeling more and more independent because he knows that he can receive aid and advice in his perplexities. Even those persons who depreciate the colleges and stations, are nevertheless greatly dependent upon them, for they share the general mental uplift and partake of the new ideas which diffuse from the teacher and the experimenter into every farmer's meeting, into the schools, and the rural press. Public sentiment is compelling better farming.

As a consequence, knowledge of all theories and practices which make for better fruit growing are being rapidly popularized. It is enough to cite only a single example,—the fact that spraying for the control of insects and diseases is better understood and more extensively practiced by the fruit growers of America than by those of any other country.

It is generally the first thought of the fruit grower to plant that kind of fruit which he can raise. It is quite as important, however, to plant that which he can sell. It is the business of the experiment station to determine means of increasing the production ; it does not teach means of selling the product except as it makes the product better. There is necessity, therefore, that problems of marketing receive more and more attention from farmers ; and these problems are more complex with the increase of population and of competition.

The first step in a discussion of marketing is a classification of the purposes of the given enterprise. Classified in respect to the objects in view, there are two kinds of fruit growing,—that which desires it primarily for market. Of market or commercial fruit growing, there are again two types,—that which aims at a special or personal market, and that which aims at the general or open market. The ideals in these two types of fruit growing are very unlike, and the methods and the varieties which succeed for the one may not succeed for the other.

The man who grows fruits for the special market, has a definite problem. The product is desired for its intrinsic qualities; and special products demand special prices. The man who grows fruit for the world's market, has no personal customer. The product is desired for its intrinsic or market qualities; and the world's products bring the world's prices. The special market fruit grower generally works on a small base. The world's market fruit grower works on a large base; or he sells to another who, by combining similar products of many persons, is able to command the attention of the market. Failure to distinguish these two categories is the result of a confusion of ideas. One grows fruit either for special and personal market, in which case he looks for his own customer and is independent of general trade; or he grows what the market demands, and allows the machinery of trade to handle the product. In the latter effort, the American fruit grower is preëminent; but in the former he has made little more than a beginning.

A SUMMARY.

1. The essence of these remarks is the fact that in the staple or large area crops, the demand regulates the supply; whereas, in products which are essentially luxurious, amenities and accessories, the supply largely regulates the demand.

2. It follows, then, that general or staple products find their best outlet in the general and open markets; special and accessory products find their only outlet in particular and personal markets.

3. The foreign market may be expected to increase. I have already outlined the reasons, as they appeal to me, for the great development of fruit growing in North America; and therein are stated reasons why we can enter the European markets. It only remains to add that the European consumers desire our fruit. It is handsome, uniform, and much of it is of excellent quality. It is also well packed; or, rather, that which is not well packed does not reach the discriminating consumer. The English are now well acquainted with our apples, and fruit buyers on the continent, particularly in Germany, are learning to know them. The foreign market is only fairly opened: it is not yet supplied. Most persons with whom I have talked in Europe believe that the European fruit growers cannot compete with the American in general market fruit and they are looking for a growing trade in American produce; and my own opinion is that they cannot compete with us in apples, and probably not even in pears and some other fruits. But as exportation increases the more discriminating the foreign market will become. Greater and greater attention must be given to packing and grading, selection of varieties, and particularly to good tillage, thinning and spraying; for spraying gives a better keeping as well as a sounder fruit.

QUESTION OF PLANTING.

A person connected with an experiment station is often asked if he would advise the planting of more fruit. The question is one which pertains to business and is therefore not in the purview of the experimenter; and the success of any venture is intimately associated with the personality of its promoter.

It seems to me that the success in the general metropolitan and export markets is to be more and more secured by large area fruit farming, and that other fruit farmers must develop sufficient skill to raise choicer things for more restricted and better markets. As a whole, fruit growing is not overdone, particularly if the foreign markets are properly encouraged and supplied; but in particular cases and places it is overdone. Some fruits are not capable of indefinite extension. It seems, for example, that grape growing in Western New York has reached the limit of its profitable development for the time being. Grapes are a dessert fruit. They are not used to a large extent in culinary preparations; and there are few incidental or secondary products,—that is, they are not dried, canned, made into jellies and the like, to any extent. Moreover, quality in a grape does not show on the surface as it does on apples or peaches. In apples, there is likely to continue to be a demand for export, and the demand for dessert apples is almost wholly unsupplied. In fact, the demand of the world's markets has obscured the importance of the special markets. Of good peaches, pears, apricots and berry fruits there is sufficient supply only in occasional years; for even when the open market may be full, there are still persons who are asking for a better grade for private use. All these hints are given to indicate the fact that success in fruit growing is quite as much the hunting out of a market as the raising of the fruit; and the market problem should be clearly in mind from the moment the plantation is planned.

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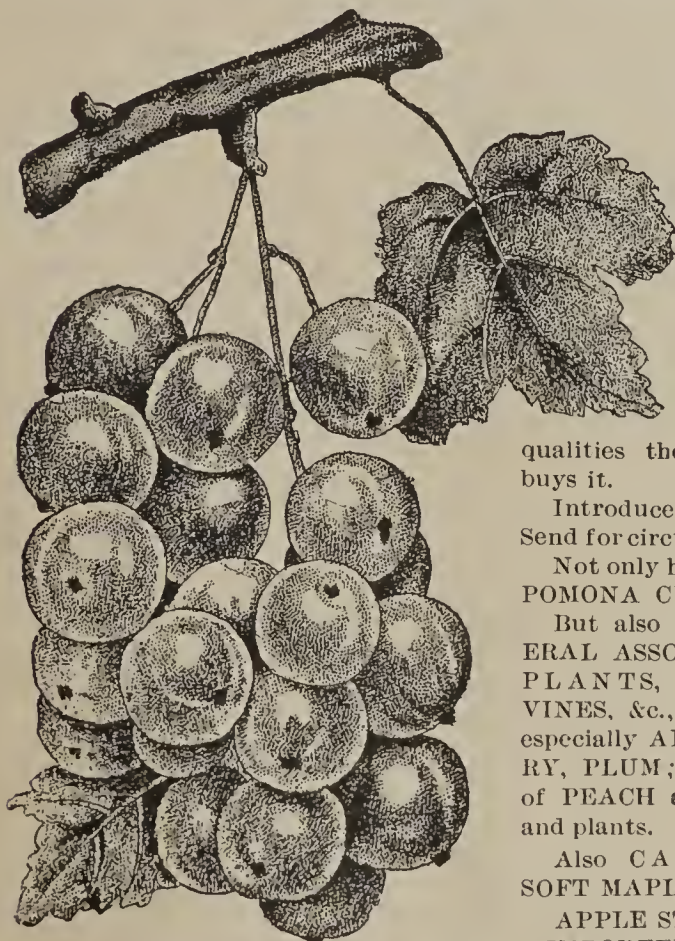
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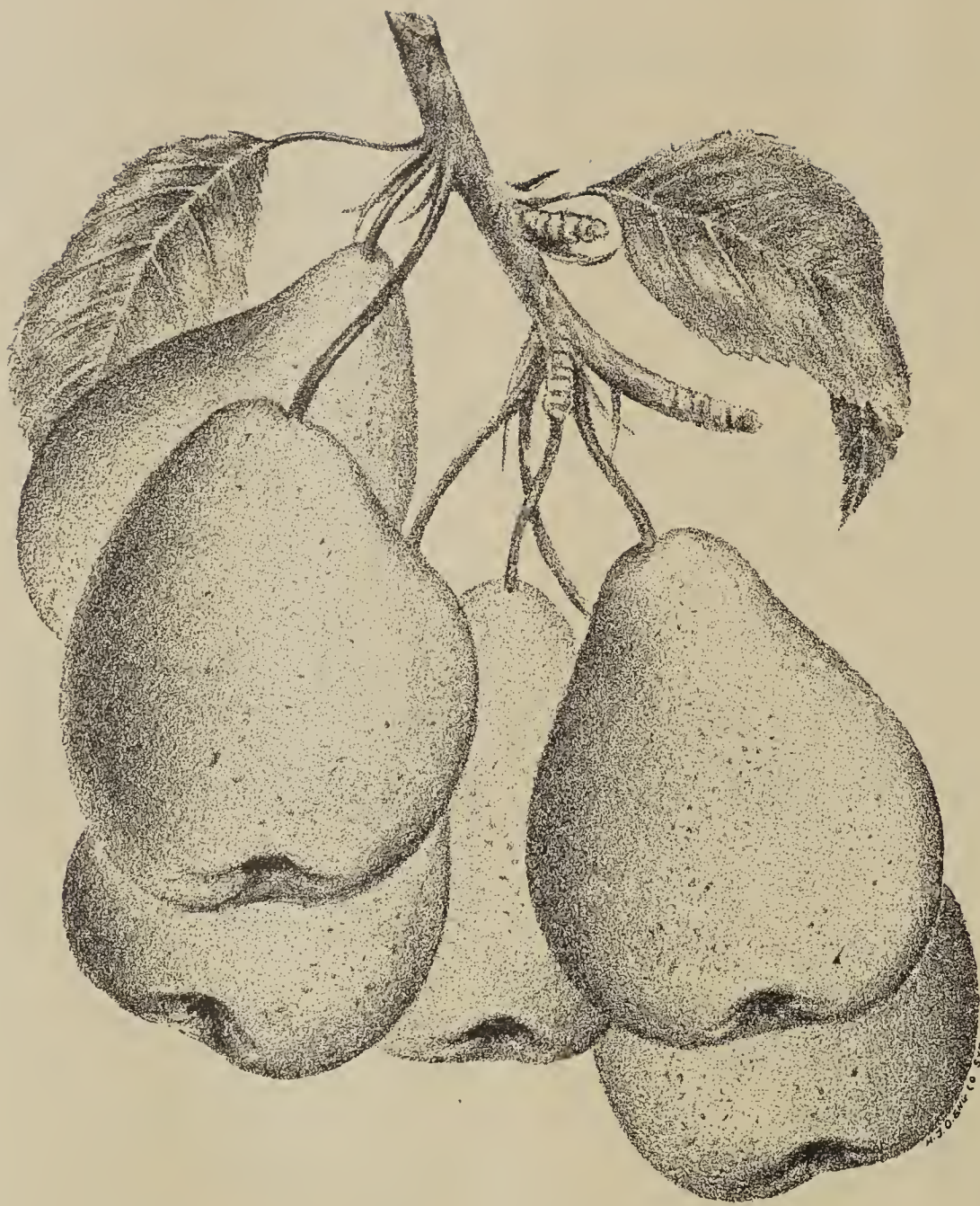
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"Horticulture indicates the march of civilization."

VOL. VI.

ROCHESTER, N. Y., JANUARY, 1899.

NO. 12.

WITH THE PLANTERS.

Proceedings of Nine State Horticultural Society Meetings—Nurserymen Prominent as Officers and Active Workers—What Orchardists are Doing in Michigan, Indiana, Ohio, Missouri, Minnesota, Virginia, Maryland, Iowa and Ontario.

The Iowa State Horticultural Society held its thirty-third annual convention in Des Moines, Dec. 13-16. The society, like many of the state societies, is officered by nurserymen. President C. F. Gardner, Osage, in his annual address said:

It seems to me that the time has now come to eliminate from our discussions the question as to whether or not it was advisable to import scions from Russia and other foreign countries, or to confine ourselves, in our experiments, to the varieties already here in America.

Our society has been divided in opinion on this subject. In the mean time, both lines of experiments have been carried on with the result that several hundred varieties of foreign trees have been planted in every nook and corner of the state, have come into bearing, and have been here long enough to give us a general idea of whether they are adapted to our wants or not. Professor Bailey has said: "The new varieties are gradually supplanting the old, so quietly that few people are aware of it, and by the time the contestants are done disputing, it will be found that there are no Russians and no eastern apples, but a brood of northwestern apples which have grown out of the old confusion."

Reports from the twelve districts into which the society has divided the state were read. G. L. Brackett from the first district reports: "In this district, which was once famous for its commercial orchards from which large shipments were made of as fine fruit as ever grew, to-day there is scarcely a commercial orchard of any considerable size to be found." However, there is a revival in the business. Mr. Brackett says the time is ripe for starting commercial orchards again in the first district.

R. B. Speer, of the eighth district, reported: "Nurserymen should test all the fruit that they offer for sale and I would not buy a variety of the tree fruits or small fruits from a nurseryman who could not show it to me in his own orchard or small fruit garden."

B. F. Ferris, for the ninth district, reported that he shipped apples to South Dakota, Illinois, Minnesota and Northwest Iowa, and car-loads were sent to Southern Iowa. Car loads of crab apples went to waste for want of a market. Plums were a failure.

Elmer Reeves, of the eleventh district, reported that many peach orchards have come to his attention. He says: "There seems to be a desire to grow something that we cannot grow and more trouble will be taken to grow a few poor peaches than would suffice to grow bushels of something adapted to our climate."

Eugene Secor of the twelfth district, reported that more fruit was grown in this district in 1898 than in any one previous year. Apple growing is no longer a problem for fall and

summer varieties. Nurseries reaped a harvest in that district. Mr. Secor said: "Many quite large orchards were planted this year and more are contemplated. Late keepers or cold storage is the need of this part of Iowa." Other fruits were plenty in the twelfth district except plums. J. B. Mitchell, of Cresco, said the fruit belt in Iowa is steadily moving northward.

Experiment stations were provided for as follows: Professor John Craig, Ames, central station; C. G. Patten, Charles City, crossing apples; P. F. Kinne, Storm Lake, grafting apples; A. Bronson, New Sharon, plum, cherry and stem fruits; J. B. Jackson, Glenwood, small fruits and peaches; C. L. Watrous, Des Moines, pear and apple; H. P. Speer, Cedar Falls, crossing and top grafting apples; M. J. Wragg, Wauke, plums, cherries and ornamentals. The supervising committee consists of Professor Craig, C. F. Gardner and Elmer Reeves.

M. J. Wragg, Wauke, presented a paper on herbaceous plants. Henry Schroeder discussed German prunes; C. F. Gardner, neglected evergreens; M. J. Graham, of Adel, Dye-house, Early Richmond and Montmorency cherries; W. M. Bomberger, of Harlan, the marketing of fruit; President N. F. Murray, of the Missouri State Society, the propagating of raspberries; J. B. Mitchell, Cresco, and Elmer Reeves, Waverly, apples.

The following officers were elected: President, C. F. Gardner, Osage; vice-president, M. J. Wragg, Wauke; secretary, George H. Van Houten, Lenox; treasurer, W. M. Bomberger, Harlan; directors by districts, first, G. B. Brackett, Denmark; third, J. P. Jackson, Glenwood; fifth, W. O. Willard, Grinnell; seventh, B. Shontz, Correctionville; ninth, B. F. Ferris, Hampton; eleventh, Elmer Reeves, Waverly.

MICHIGAN.

The twenty-eighth annual meeting of the Michigan State Horticultural Society was held at Ann Arbor, Dec. 6-8. Among those present were: Judge F. J. Russell, Muskegon; Professors Walter B. Barrows, Thomas Gunson, and C. D. Smith, of the agricultural college; Charles W. Garfield, S. B. Smith, and A. W. Slayton, Grand Rapids; ex-Senator C. J. Monroe, South Haven; R. M. Kellogg, Three Rivers; E. H. Hunt, Saranac; C. F. Hale, Shelby; Peter Collier, Adrian; J. C. Hanford, Detroit; Regents Lawton and Dean, of the university; Edwy C. Reid, Allegan; and Roland Morrill, Benton Harbor.

President Morrill, in his annual address, said that horticulture had been in the dumps for a number of years, but that now the whole state was becoming an orchard and the mission of the society was never more plainly marked out. That was to teach caution, moderation, and modern methods. He stated that the past year had demonstrated that the small fruit industry is overdone. Fungus and other diseases were increasing and there was a demand for thorough knowledge and careful application to the work by the horticulturist.

Papers on the following subjects were read: "Parks and Their Uses," by M. P. Hurlburt, of Detroit; "What Are Fruits?" by Professor F. G. Newcombe, of the university; "What Legislation Should We Have This Winter?" by Hon. C. J. Monroe, of South Haven. A bill for the protection of fruit-growers, to be presented at next legislature, was read. It calls for prohibition of sale and shipment of diseased fruit, frequent destruction of fallen fruit, disinfection of all packages after use, shipper's address on package, penalties for violation of these provisions.

The resolutions adopted at the close of the session urged among other things that the Michigan congressional delegation at congress be instructed to do all in their power to secure an appropriation for the study of plant pathology, particularly the disease called "Little Peaches." An invitation was extended to the Ontario associations to meet with the Michigan society in Detroit next year and make that meeting an international affair.

Officers were elected as follows: President, C. J. Monroe, South Haven; secretary, E. C. Reid, Allegan; treasurer, Asa Slayton, Grand Rapids; directors, R. M. Kellogg, Three Rivers; R. J. Coryell, Detroit; Prof. Thomas Dunston of the agricultural college.

INDIANA.

The thirty-eighth annual meeting of the Indiana State Horticultural Society was held at Indianapolis, December 6-8. President C. M. Hobbs, of the nursery firm of Albertson & Hobbs, Bridgeport, in his address said:

There has been a great deal of theorizing as to the cause of so wide-spread and complete a failure of the apple crop. The probabilities are that it was due to a combination of causes, the two most important of which were the prolonged, hot, dry weather of the previous summer, and the cool, damp, unfavorable weather during the blooming period, which prevented perfect pollination. The conditions seemed to be unusually favorable for a good peach crop, so that the fortunate possessors of peach trees enjoyed the luxury of eating this luscious fruit fresh from the trees, and this is the only way we can get this line of fruit at its best. In some localities the "curl leaf" damaged the crop to quite an extent. Thorough early spraying with the Bordeaux mixture has been found to control this disease. The peach and plum rot has been very prevalent the last season; early peaches seemed to be more susceptible than later varieties. Thinning the fruit, destroying all mummified fruits that may carry over the germs of fungus, and early and persistent spraying with the Bordeaux mixture have proved helpful in controlling this disease.

Our experiment station at Lafayette is unfortunately very unfavorably located for horticultural experiments, especially with the tree fruits. The soil is the loose, black, sandy loam situated on the edge of the bleak prairie and quite unlike soil and situations in the greater part of the state. In traveling over the state we are impressed with the lack of attention given by most farmers to the orchards, fruit gardens and house adornment. These are very important adjuncts to good farming, enjoyable and healthful living, and somehow country people need to be made more conscious of these facts. With depleted soils, a climate of greater extremes and hordes of insects and fungus diseases that were unknown to our fathers, the old methods of planting and letting nature do the rest will no longer avail to secure fruits for our families.

Sylvester Johnson's report as secretary and treasurer showed total receipts, including last year's balance, to be \$2,661.78. The expenditures were \$1,097.24, leaving a balance of \$1,564.54 on hand. Reports from George F. Newton and Joseph A. Burton, vice-presidents, in charge of the northern and southern sections of the state, showed substantially the same condition of crops as the president indicated.

J. P. Brown, of Connersville, read a paper on "An Enlarged Forest Area a Necessity to the State." He maintained that a farmer could gather heavier crops from ninety acres when one-tenth of it was covered with forest trees than another farmer could from one hundred acres planted wholly in crops. He held that the gradual thinning out of forest trees has multiplied the multitudes of insects that feed on trees and make orchards their abiding place for want of forests.

Professor B. E. Fernow of Cornell University said forestry is being taught in eighteen colleges. He does not think it advisable to teach it in more colleges at present.

These officers were elected: President, C. M. Hobbs, Bridgeport; secretary, J. Troop, Lafayette; treasurer, Sylvester Johnston, Livingston; executive committee, W. H. Ragan, Putnam county; Jesse Stevens, Wayne, and Snead Thomas, Grant.

OHIO.

The thirty-second annual meeting of the Ohio State Horticultural Society was held at Euclid December 7-9. Twenty-seven varieties of grapes, thirty of peaches and fifty of apples were shown. The general tone of fruit reports was pessimistic, prices having been low. Many grapes were sold at a loss, the average for the season being 6 and cents. Strawberries were generally sold at \$1.25 per bushel, with a reported yield of 60 to 100 bushels per acre. Pears brought 30c. to 50c., while apples were a total failure. The San José scale was touched upon very lightly, there being a feeling that the importance of the danger has been greatly magnified by parties interested in getting legislative appropriation to support a corps of bug-catchers. All legislation failed because of an attempt to attach a \$25,000 rider. Nurserymen are having private examinations made at a cost of \$10 each, but the professional entomologists are hedging and say it is impossible so to inspect as perfectly to guarantee entire exemption.

These officers were elected: President, E. H. Cushman, Euclid; vice-president, W. N. Scarff, New Carlisle; secretary, W. W. Farnsworth, Waterville; treasurer, N. Ohmer, Dayton; committeemen, ad interim, W. G. Farnsworth, Waterville; N. H. Albaugh, Phoneton; C. L. Whitney, Warren; J. Shirer, Dayton; W. H. Owen, Catawba Island; F. E. Carr, Lakewood; W. R. Lazenby, Columbus; S. R. Moore, Zanesville; E. G. Cox, Ensee.

MINNESOTA.

For many years, said the Minneapolis Tribune, it has been the generally accepted idea of the world at large that the only fruits indigenous to Minnesota soil were the gopher and the Leech Lake Indian, with perhaps an occasional crop of wheat in the more favored seasons. This notion will, however, be speedily dispelled by a visit to the fruit and flower exhibit at the court house and city hall, in connection with the 32d meeting of the State Horticultural Society. The meetings were held Dec. 6-9 at Minneapolis. Three hundred varieties of apples were exhibited and varieties of other fruits in large numbers, all grown in Minnesota. Two hundred members attended. President J. M. Underwood, of the Jewell Nursery Co., Lake City, presided. The society has over 800 members.

Professor S. B. Green of the State Agricultural College, read a paper entitled "The Apple Seedling in the Development of a Local Pomology." He reviewed the history of the apple in the United States and led up to the general conclusion that each section must originate its own list of apples as well as other fruits. J. S. Harris gave it as his opinion that among

the more recent Minnesota seedlings of value are the Nelson, Holt, Lord's Seedling L, Norse, Molly, Peerless, Okabena, Katherine, and Titus Day No. 2.

E. H. S. Dartt of Owatonna answered in the affirmative the question: "Does experience promise Minnesota a hardy, long-keeping seedling apple?" Mr. Dartt advised against grubbing out an apple tree killed by frost. If the shoots that spring up from the roots be left alone, they will produce a scrubby, bushy tree, but it is likely to bear many apples. It was recommended that in grafting a long scion and a short root be used, so that the tree will take root from the scion.

A. B. Choate of Minneapolis assured the horticulturists that the originator of a seedling fruit is entitled to legal protection in the common law. The difficulty is in identifying the different seedlings and in determining to whom the legal protection is to be given.

Clarence Wedge, of Albert Lea discussed apple seedlings of merit in Northern Iowa. He especially mentioned Patton's Greening, Brilliant, Iowa Beauty, Duchess No. 6, all of which were originated by C. G. Patton, of Charles City, Iowa; the Arthur, originated near Charles City; and the Red Warrior, Mitchell's 4-A and Cresco, originated by J. B. Mitchell of Cresco, Iowa. Mr. Patton, J. S. Harris and O. F. Brand led in the discussion. Mr. Patton recommended that in originating species great attention be paid to the strength of the fruit stem. The climate requires apples that do not easily fall from the tree. Mr. Patton insisted on the name Patton's Greening for his favorite seedling which he believes answers all the conditions demanded of an ideal Minnesota apple—instead of the Patton, which the society had given to it. On motion of Mr. Harris, Mr. Patton's wish was granted. C. F. Gardner, Osage, Ia., discussed strawberries. Elmer Reeves, Waverly, Ia., represented the Iowa State Society.

A feature of the morning session was the appearance of the venerable Peter Gideon of Excelsior, originator of the Wealthy. The convention greeted him standing and took a short recess to allow members an opportunity to meet him. Mr. Gideon made a few remarks in which he alluded to the 60,000 and more apple seedlings he has sent all over the state.

On the opening of the third day's session President Underwood in response to a general clamor, sang "Tim Finnigan's Wake" and E. H. S. Dartt of the tree experiment station dropped into poetry, reciting an original poem "The Pioneer," which he started to write in Wisconsin 50 years ago. When order was restored President Underwood delivered his annual address. "The rapid increase in material wealth of the country has been shared in a marked degree by the horticultural interest," said he. "Horticulturists, as a rule, are the most persistent, indomitable class of people engaged in the struggle of developing the hidden resources of nature. Reverses act as a stimulus to them, quickening their efforts and strengthening their determination." The address recommended the offering of a prize of \$1,000 for a new species of apple as good as the Wealthy in size, quality and appearance, that will keep as well as the Malinda, and prove as early and as profitable as the Duchess. It was decided to offer such a prize. The society's exhibits at the state fair this year doubled the number of varieties of fruit shown last year. It was recommended that the Fairbault crab apple, the London red raspberry, Columbian black raspberry and Splendid strawberry be transferred from the trial to the general list of fruits for Minnesota.

The following resolution was adopted: "Resolved that the Minnesota State Horticultural Society heartily endorses the efforts of the board of regents to increase the facilities for instruction in horticulture and forestry at the school of agriculture and hereby urges the coming legislature to make an appropriation of \$3,500 for constructing and equipping a building for horticulture, forests, botany and physics."

Officers were elected as follows: President, Professor W. W. Prendergast, Hutchinson; vice-presidents, F. W. Kimball, Austin; S. D. Richardson, Winnebago City; Mrs. A. A. Kennedy, Hutchinson; R. S. Macintosh, St. Anthony Park; Col. J. M. Stevens, Minneapolis; Mrs. J. Stager, Sauk Centre; D. T. Wheaton, Morris; treasurer, C. W. Sampson, Eureka; executive board, John P. Andrews, Fairbault; L. R. Moyer, Montevideo. The secretary A. W. Latham, Minneapolis, will undoubtedly be re-elected by the executive board.

MISSOURI.

The forty-first meeting of the Missouri State Horticultural Society at Columbia, Dec. 6—8, was well attended by horticulturists from all parts of the state, in addition to delegates from the horticultural societies of Illinois, Iowa, Kansas and Michigan. Aside from papers by members of the society, the programme included addresses by Professors H. E. Van Deman, L. R. Taft and M. B. Waite. A resolution was adopted favoring an appropriation of \$50,000 for a building for the departments of horticulture, botany and entomology on the State Agricultural College grounds. Norman F. Colman, the first secretary of agriculture, in an address dwelt on his work in Washington in 1884, when he brought about the establishment of the department of pomology, which resulted in the establishment of the experiment stations. He said: "The first thing I encountered was an inclination on the part of Washington authorities to ridicule the Department of Agriculture. I went to work in earnest and soon noted a change of sentiment. The newspapers ceased their jesting and I began to receive encouragement on every hand." Mr. Colman also spoke of the establishment of the department of vegetable pathology and the work of Galloway at its head.

The following officers were elected: President, N. F. Murray, Oregon; first vice-president, D. A. Robnett, Columbia; second vice-president, Samuel Miller, Bluffton; secretary, L. A. Goodman, Westport; treasurer, A. Nelson, Lebanon.

ONTARIO.

The Ontario Fruit Growers' Association met at St. Catharines, Dec. 1—2. President W. E. Wellington of the nursery firm of Stone & Wellington, presided. Among those present were: W. M. Orr, Fruitland, vice-president; L. Woolverton, Grimsby, secretary-treasurer; W. A. Whitney, Iroquois; R. B. Whyte, Ottawa; George Nicol, Cataraqui; W. Boulter, Picton; Thomas Beall, Lindsay; F. C. Beman, Newcastle; M. Pettit, Winona; A. M. Smith, St. Catharines; J. S. Scarff, Woodstock; T. H. Race, Mitchell; Alexander McNeill, Windsor; G. A. Caston, Craighurst; A. H. Pettit, Grimsby; George F. Fisher, Freeman; Dr. Saunders, Ottawa; Professor Robertson, Ottawa; Professor W. T. Macoun, Ottawa; R. W. Brodie, Montreal; Jonathan Carpenter, Grimsby; R. L. Haggart, Whitby; J. W. Smith, Winona; F. G. H. Pattison, Grimsby; E. Morris, Fonthill; E. H. Wartman, Kingston; E. J. McIntyre, Niagara-on-the-Lake; W. Lailey, George Robertson, St. Catharines; Dr. Mills of the Experimental Farm, Guelph.

In his annual address President Wellington said that last year the society had 3,315 members, this year 4,151 who had paid their fees. The receipts this year were \$6,895; the balance on hand \$784. He spoke of the reception by Hon. Sidney Fisher of the deputation which had gone to Ottawa to interview him regarding the San Jose scale. By his courteous and prompt action in responding to the wishes of the deputation, he showed himself to have at heart the true interests of the farmers. The provincial government, too, had ably seconded his efforts in this matter. He referred in a congratulatory manner to the fruit experimental work and to the establishment of an experimental station on St. Joseph Island. The encouragement received in the matter of exportation to Great Britain was also mentioned with gratification.

There was much discussion of methods of shipment of fruit to England and of the effects of spraying.

The election of officers resulted as follows: President, W. E. Wellington, Toronto; vice-president, Wm. Orr, Fruitland; secretary-treasurer, L. Woolverton, Grimsby; directors, W. A. Whitney (Iroquois), R. B. White (Ottawa), George Nicol (Cataragui), W. Boulter (Picton), Thomas Beal (Lindsay), E. C. Beman (Newcastle), M. Pettit (Winona), A. M. Smith (St. Catharines), J. S. Scarff (Woodstock), J. I. Graham (Vandeleur), T. H. Race (Mitchell), Alexander McNeil (Walkerville), G. C. Caston (Craighurst); auditors, A. H. Pettit (Grimsby) and Geo. E. Fisher (Freeman). It was decided to hold the next annual meeting at Whitby.

VIRGINIA.

The annual meeting of the Virginia Horticultural Society was held at Charlottesville, Dec. 6—7. A lecture on new fruits, with models, was given by United States Pomologist Brackett. Professor W. B. Alwood of the experiment station gave an illustrated lecture on planting and pruning fruit trees; also a report on entomology, dealing largely with the San Jose scale. Officers were re-elected as follows: President, Samuel B. Woods, Albemarle; vice-president, W. H. Boaz, Coveseville; secretary-treasurer, George E. Murrell, Bedford.

MARYLAND.

The first annual convention of the Maryland State Horticultural Society was held in Baltimore, Dec. 14—15. President Charles G. Biggs, of Sharpsburg, complimented the members on the interest shown in the organization. Professor William A. Taylor, of the division of pomology, United States Department of Agriculture, delivered an address on "The Possibilities of Apple Culture in the Blue Ridge Mountains." He argued that since the soil and climatic conditions were of the right sort, the Blue Ridge district could, because of its availability to eastern ports, compete with advantage for the foreign as well as domestic trade in apples. As the most profitable varieties Professor Taylor suggested Winesap, Ben Davis, York Imperial; and in some places Pippins.

State Entomologist W. G. Johnson and others reported orchards generally to be in a healthy condition. Papers were read by J. W. Kerr, Denton, and W. F. Allen, Salisbury, nurserymen, the former on the plum, the latter on small fruits.

The following officers were elected: President, James S. Harris, Coleman, Kent county; vice-president, Samuel B. Loose, Sharpsburg, Washington county; secretary and treasurer, Professor W. G. Johnson, College Park, Prince George's county; vice-presidents, R. S. Cole, Harman's; Richard

Vincent, Jr., White Marsh; J. W. Kerr, Denton; R. McHenry, Griffith; George Balderson, Colara; Samuel Cox, Jr., Bel Alton; E. Stoner, Westminster; Robert L. Gulick, East New Market; H. B. Witther, Frederick county; Charles T. Sweet, Swanton; W. F. Bergman, Dayton; J. Savage Williams, Harford county; James H. Baker, Pomona; C. R. Hartshorn, Brighton; C. C. D. Townshend, Woodmore; John W. Hall, Marion Station; Frank Emory, Centreville; J. P. Ballinger, Mechanicsville; Dr. Charles Lowndes, Easton; Orlando Harrison, Berlin; Thomas Parry, Salisbury; Arthur L. Towson, Smithsburg; James M. Mattingly, Mount Savage.

THE WORDEN SECKEL PEAR.

Through the courtesy of Messrs. Smiths & Powell Co., of Syracuse, N. Y., we are permitted to present to our readers in this issue a cut of the Worden Seckel pear, of which we have made frequent favorable mention in this paper heretofore. The pear as represented here, is about one half the size of a well grown, fully developed specimen.

This beautiful pear was originated by Sylvester Worden, of Oswego Co., N. Y., the originator of the celebrated Worden grape. It is a seedling of the Seckel, which we think is conceded by pomologists to be a standard of excellence. For the last ten or twelve years, this original tree has not failed to bear a crop of beautiful, well formed, healthy fruit, without spraying or any other treatment, showing, we think, a freedom from a tendency to scab or other pear diseases. The tree is more upright and a much better grower than its parent, and has a rich, abundant foliage, which it retains until late in the season. Its hardiness is evinced by the fact that in the cold county of Oswego the trees have stood without injury for many years.

It is an enormous bearer and, therefore, the fruit requires thinning fully and properly to develop the specimens. It ripens a little later than the Seckel, is an excellent keeper, and we should expect it to make a good shipper.

There are few, if any, other pears that combine such high quality, such rare beauty, great production, hardiness and freedom from disease. The past season some magnificent specimens of the fruit were taken from the parent and other trees, and these were distributed among the leading pomologists in the country, and the NATIONAL NURSERYMAN being favored with a sample, can testify as to its excellent quality. The encomiums it received from the many eminent pomologists and fruit lovers were most complimentary, and by them it has been awarded a high place in the honor roll of new and valuable acquisitions to the pomology of this country.

We are informed by the disseminators of this pear that they were able to pick many excellent specimens from the three and four year old standard trees in the nursery row the past season, which speaks well for its early maturity and bearing qualities.

The contemplated large plantings by orchardists and pomologists all over the country would indicate their esteem and confidence in its future. We think we do not over praise it in stating that it is the best and handsomest dessert pear yet introduced, and if its future can be judged by its past, it will be as popular as it is handsome and good.

Bind your numbers of the NATIONAL NURSERYMAN and have for ready reference an indexed record of the trade news of the year. \$1 per annum.

Among Growers and Dealers.

The nursery of H. N. Rue, Big Stone City, S. D., is for sale.

J. W. Miller, Freeport, Ill., has opened an office at Rockford, Ill.

In the new Cuban tariff, trees, plants and moss are placed on the free list.

The greenhouses of Z. K. Jewett, Sparta, Wis., have been rebuilt and greatly enlarged. Miss Marian Jewett is manager.

Joseph Hamilton Dodge corrects the statement that he is a member of the firm of George Moulson & Son, Rochester, N. Y.

M. E. Callahan of the Pioneer Nursery Company, Salt Lake City, Utah, called on Western New York nurserymen early last month.

J. C. Grossman, Wolcottville, Ind., writes: "Retail trade is opening up good for spring delivery. Very heavy on peach and Japan plums.

The Jewell Nursery Co., Lake City, Minn., has filed a memorial with congress asking for retaliatory legislation against Canadian nursery stock.

W. M. Bomberger, Harlan, Ia., is treasurer of the Iowa State Horticultural Society, a position he has held four years; he is also secretary of the Southwestern Iowa Horticultural Society.

The Maine State Horticultural Society held its annual meeting at Skowhegan on Dec. 27-29. On the same dates the Kansas State Horticultural Society met in Topeka and the Illinois Society in Springfield.

The Chattanooga, Tenn., Nursery Co.; has been incorporated to buy, sell and grow all kinds of nursery goods. Authorized capital, \$50,000. Incorporators, J. W. Shadon, William Allen, F. A. Pattie, H. N. Camp, J. S. O'Neal.

The Evergreen Nursery Co., Evergreen, Wis., has shipped 12,000 trees from its nursery to a buyer at Hexham, England. The company also has an order for 400 pounds of native tree seed from a firm at Grosstabarz, Germany.

Chase Brothers Company, Rochester, N. Y., have recently put in an acetylene gas plant in their spacious packing building and cellars. The capacity is for 1,000 pounds. Gibbs generator is used. It occupies a separate building located 50 feet from the main buildings.

The seventeenth annual meeting of the American Forestry Association was held in Washington, D. C., Dec. 14. Secretary of Agriculture James Wilson was elected president, Dr. B. E. Fernow, of Cornell University, vice-president, and F. H. Newell, secretary and treasurer.

The Arkansas State Horticultural Society has elected officers for the ensuing term as follows: President, Frank Hill, Little Rock; first vice-president, A. W. Poole, Ozark; second vice-president, H. Strother, Fort Smith; secretary, J. T. Stinson, Fayetteville; treasurer, S. A. Williams, Fort Smith.

The Southern Illinois Horticultural Society met at Vandalia, Dec. 2, and elected these officers: President, J. W. Stanton, Richview; first vice-president, L. L. Beal, Mt. Vernon; second vice-president, H. A. Aldrich, Neoga; third vice-president, H. L. McGee, Villa Ridge; secretary and treasurer, E. G. Mendenhall, Kinmundy.

Secretary Wilson of the Department of Agriculture is considering the propriety of making a special effort to prepare a publication which shall contain a résumé of the achievements in the United States in every branch of science as related to agriculture during the nineteenth century, for distribution at the Paris Exposition.

Brown Brothers Company are about to erect new offices on their home grounds at Brighton, N. Y. The building will be in colonial style, frame on stone foundation. It will be 100 feet long by 36 feet wide. There will be a cellar under the entire structure. Hot water will be used for heating and all necessary modern improvements will be introduced.

The Iowa State Horticultural Society has endorsed Charles C. Bell, of Booneville, Mo., for one of the twelve United States commissioners in charge of American horticultural and agricultural interests at the Paris exposition, on behalf of the fruit growers of the Central West. President McKinley is asked to appoint him. He has been endorsed by Missouri.

The sheriff of Monroe county last month levied on the nurseries and office fixtures of Charles Little, Rochester, N. Y., on executions in favor of the following: Silvanus F. Jenkins and Silvanus J. Macy, jr., \$151.71; Lord & Thomas, \$170.30; Traders' National bank, \$320.82; Mary A. Gordon, \$984.68. The property is advertised for sale on January 4th.

The certificate of incorporation of the Buffalo Forestry Association was filed December 5. The association will promote the protection and planting of trees in Buffalo. The directors are Frank Brundage, George B. Matthews, Andrew Langdon, Walter T. Wilson, L. J. Bennett, David F. Day, George S. Potter, Frank H. Goodyear, George Urban, Jr., James A. Darlington, John J. Albright, John M. Provoost, George B. Montgomery and Henry C. French.

Horticultural society meetings will be held on the following dates: Alton Society, Alton, Ill., Jan. 1; New Jersey at Trenton, Jan. 4-5; Peninsula at Smyrna, Del. Jan. 11-13; Rhode Island, at Providence, Jan. 18; Pennsylvania, at Harrisburg, Jan. 18-19; Western New York, at Rochester, Jan. 25-26; Wisconsin, at Madison, Feb. 7-10; Eastern New York, at Albany, Feb. 21-22; Central Missouri, at Booneville, March 4; Massachusetts, at Worcester, in March.

LARGE SHIPMENT OF SEEDLINGS.

A shipment of seedlings of various kinds, amounting to 174 cases, consigned to Irving Rouse, Rochester, N. Y., will arrive in New York from France during the first week of January. They will be forwarded immediately to Rochester in a train of twelve cars. The shipment is the result of the visit to France, during the last two months, of George G. Gleason, Mr. Rouse's superintendent, who returned last month.

THIS CAME WITH A DOLLAR BILL.

J. W. KERR, DENTON, MD., Dec., 17th, 1898—"Enclosed find paper with our nation's signature thereon, which I offer in exchange for one year's subscription to NATIONAL NURSERYMAN. (1899). While mine is at a discount in some respects, I acknowledge yours to be at a premium, as the exponent of clean, up-to-date, horticultural doctrine. By good business management you can exchange the paper I send for one hundred copper pennies, which you can by proper manipulation, turn to horticultural account, as copper in its various forms is a good fungicide, and with your effectual editorial sprayer, you can keep on killing out the rot."

The National Nurseryman.

C. L. YATES, Proprietor.

RALPH T. OLCOTT, Editor.

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SUBSCRIPTION RATES.

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Six Months,	"	"	-	-	-	1.00

Advertising rates will be sent upon application. Advertisements should reach this office by the 20th of the month previous to the date of issue.

Payment in advance required for foreign advertisements.

Drafts on New York or postal orders, instead of checks, are requested.

Correspondence from all points and articles of interest to nurserymen and horticulturists are cordially solicited.

AMERICAN ASSOCIATION OF NURSEYMEN.

President, A. L. Brooke, N. Topeka, Kan.; vice-president, E. Albertson, Bridgeport, Ind.; secretary, George C. Seager, Rochester, N. Y.; treasurer, C. L. Yates, Rochester, N. Y.

Executive Committee—C. L. Watrous, Des Moines, Ia.; Robert C. Berekmans, Augusta, Ga.; F. H. Stannard, Ottawa, Kan.

Committee on Transportation—A. L. Brooke, ex-officio, chairman; William Pitkin, Rochester, N. Y.; Peter Youngers, Geneva, Neb.; Wilson J. Peters, Troy, O.; Robert C. Berekmans, Augusta, Ga.

Committee on Legislation—C. L. Watrous, Des Moines, Ia.; N. H. Albaugh, Tadmor, O.; Silas Wilson, Atlantic, Ia.; Thomas B. Meehan, Germantown, Pa.

Committee on Tariff—Irving Rouse, Rochester, N. Y.; J. J. Harrison, Painesville, O.; N. W. Hale, Knoxville, Tenn.

Annual convention for 1899—At Chicago, Ill., June 7, 8.

Entered in the Post Office at Rochester, as second-class mail matter.

ROCHESTER, N. Y., JANUARY, 1899.

FEDERAL SCALE BILL.

Much interest has been manifested among nurserymen in the federal scale bill, since the opening of congress. In response to many inquiries, ex-President Rouse, of the American Association, who has devoted much time to the effort to secure federal legislation on this subject, entered into correspondence with Chairman Wadsworth of the House committee on agriculture and with Congressman Charles A. Barlow, of California, who introduced the bill. Each of these gentlemen wrote that while there was no doubt that the bill would become a law, they did not think it would be passed at the present session, because it would require unanimous consent to take up the subject and this could scarcely be expected in the pressure of more important matters.

The legislative committee of the American Association, Messrs. Watrous, Albaugh, Wilson and Meehan, has been advised of the situation and it is probable no visit to Washington

in the interest of the bill will be made during the present session of congress.

The new agricultural bill has a clause empowering the Secretary of Agriculture to keep out of this country any food products that may prove injurious. This will affect fruit imports that are not proper. A similar clause, relating to nursery stock, is in the federal scale bill.

FRENCH QUARANTINE.

M. Thibaut, Charge d'Affaires of France, has notified Secretary Hay that the French government was about to adopt precautionary measures against the introduction from this country of the San Jose scale, and that decrees will be issued prohibiting the importation of trees, shrubs and plants from the United States, and inquiring an inspection of all fruits, fresh and dried, at the point of landing in France. The general trade from this country to France will suffer little through this step, as the shipments of trees, plants and shrubs in 1897 aggregated only \$328, and those of fruit \$40,000. The action of France was taken, it is said only after some of the American States had adopted precautionary laws against the pest referred to.

NEW GEORGIA REGULATIONS.

The Georgia laws of 1897 governing the inspection and transportation of nursery stock has been amended by the constitution of a state board of entomology which shall enact rules governing nursery stock. Stock must be inspected annually before November 1st. Certificates will be given. Infested stock may be destroyed at the expense of the owner.

Section 10. It shall be unlawful for any grower, nurseryman or corporation to ship within the state of Georgia any trees, shrubs, cuttings, vines, bulbs, roots, without having been previously inspected by either a state or experiment station entomologist or government officer, within twelve months of the date of said shipment, and certificate of inspection to accompany each box or package. Violation of this clause will be considered a misdemeanor and punishable as such.

Section 13. Each and every person residing in states or countries outside of the state of Georgia dealing in or handling trees, plants, cuttings, vines, shrubs, bulbs and roots in this state shall register his name and firm and file a copy of his or its certificate of inspection furnished by the entomologist, fruit inspector or duly authorized government official of his state or country, with the chairman of the board of control. Upon failure to do so, said stock shall be liable to confiscation under order of the inspector.

WESTERN FREIGHT CLASSIFICATION.

President A. L. Brooke of the American Association and of the Western Association of Wholesale Nurserymen, writes to the NATIONAL NURSERYMAN from North Topeka, Kansas, as follows: "J. T. Ripley, Chairman of the Western Classification Committee has notified me by letter, that the National Association of Nurserymen would be allowed to appear before his committee in May, in behalf of any petition its committee on transportation may desire to present. If the NATIONAL NURSERYMAN or any of its readers should have any practical suggestions along the line of transportation of nursery stock to present, the committee on transportation would be glad to receive them, either through your valuable journal, or by writ

ing to the secretary of the committee, R. C. Berckmans, Augusta, Ga.

"No doubt much can be accomplished at the above meeting if the wants and needs of nurserymen are properly formulated and presented to this fair and intelligent body of railroad men.

"A proper discussion of this subject would be a matter of great interest, and I hope it will come before your many readers through the columns of your journal."

WORSE PESTS THAN SCALE.

At a recent meeting of the Horticultural Lazy Club at Cornell University, Professor L. H. Bailey, emphasized the futility of the cry against the San Jose scale. While it is a dangerous pest, there are others far worse. Two years ago the San Jose appeared at Cornell. It was vanquished in a single season, except a few yet retained as souvenirs. This year apples were very wormy, though the trees were carefully sprayed. In fact, the codlin moth seems to be on the increase, spraying notwithstanding. It is certainly much harder to combat than the San Jose scale; for the latter yields readily and completely to thorough treatment, while the older enemy persists.

FOR ALL WHO SHIP STOCK.

One of the most important adjuncts to the nursery business is the compilation of the scale laws just issued by the NATIONAL NURSERYMAN. It is the only publication of the kind thoroughly up to date. Nineteen of the states of the Union have adopted laws directly affecting all who ship nursery stock. The pamphlet referred to contains the provisions of all these laws, together with special regulations for their enforcement; also the federal bill, the Canadian exclusion act, the Ontario and British Columbia scale laws and the United States and Canadian tariff schedules on nursery stock.

The whole is offered at the low price of twenty-five cents. No nurseryman can afford to do business without a copy of this compilation of nursery laws of the United States and Canada. The demand for it began the moment its issue was announced. We expect to supply every nurseryman in the country.

THE RUSSIANS IN CANADA.

At last month's meeting of Ontario fruit growers Professor W. T. Macoun of the Ottawa Experimental Farm gave some observations on Russian fruits at that farm. He stated that the experiments had extended over ten years, and there are now 160 apple trees, 18 pear, 12 cherry and 7 plum out of all that were planted in 1888. A blight appeared in 1892 among the pears and 65 trees were killed, and the apples were also affected. In 1893 the pears were worse than the previous year, and the apples were reduced to stumps. In 1894 nothing happened, but in 1895 root killing, caused by severe weather, ruined the last of the pears, and in 1896 the same evil was at work. About half of the original apples are left, some are promising, but none good enough to be recommended.

A Russian seedling orchard was started from seed from Northern Russia. Of 3,000 seeds planted 150 came into bear-

ing. Some are fair, but most of them are of ordinary quality. Pears are doing well, but only one has come into bearing. They are soft and mealy, and not worth growing except where others will not survive. The cherries and plums had nearly all been killed.

A NEW VOLUME.

With the next issue of the NATIONAL NURSERYMAN a new volume will begin. Those who have not renewed their subscriptions should do so at once, if they wish to receive the forthcoming issues, and new subscribers should start with the next number. Can you afford to be without the official journal for \$1 per year.

CAN AFFORD IT NOW.

Every nurseryman who can afford to do business at all can afford to keep posted as to matters of business interest in nursery circles. This can only be done by subscribing to the NATIONAL NURSERYMAN. One dollar a year is a small outlay compared with the returns. Subscribe now at the beginning of volume VII.

Much news of interest to nurserymen is found in the proceedings of the annual meetings of the state horticultural societies. It will be seen that nurserymen are prominently connected with them; in the majority of cases they have been re-elected as officers. This indicates the confidence reposed by the orchardists in nurserymen.

Leading members of the Eastern Nurserymen's Association are of the opinion that the interests of all concerned would be better conserved by letting the New York scale law stand as it is than by amending it as was proposed last fall for the sake of the dealers. It is probable that dealers will find no difficulty in shipping stock as they did last fall. It is thought that the proposed amendment might open the door to possible abuse of certificates.

There promises to be considerable active work during 1899 in the forestry movement in various parts of the country. Minnesota, Michigan, New York and New Jersey authorities are interested in the subject. The new chief of the forestry division of the U. S. Department of Agriculture, Mr. Pinchot, has received offers of a million acres in twenty states for experimentation, and 100,000 acres are now under management. Forestry is taught in eighteen colleges.

An investigation of the present status of the cultivation of the European grape in the southeastern section of the United States is being made. This is being done in co-operation with the section of seed and plant introduction, for the purpose of determining the advisability of renewed efforts in the introduction and cultivation of varieties of *Vitis vinifera* on resistant stocks in that region. Many of the promising fruit-bearing species of foreign countries referred to in last year's report of the secretary of agriculture will soon be introduced into this country for experimental cultivation.

In Common Council.

FOR PRACTICAL PEOPLE.

Editor NATIONAL NURSERYMAN :

I herewith enclose you postal order to secure subscription for another year for your elegantly gotten up and newsy monthly. Some of your advertisers have secured large orders through this channel. For practical people this is the best paper I take in its line.

Chestertown, Md., Dec. 22, 1898.

H. L. BOYD.

MINOR MATTERS TO ADJUST.

Editor NATIONAL NURSERYMAN :

I do not feel that the western nurserymen have any reason to complain of the western classification of nursery stock. There are some minor matters, however, which I think might be adjusted without much trouble.

I see no reason why grafts, grape vines, or cuttings should be placed in the second class instead of being classed with trees and shrubs under third-class. It also strikes me that baled trees and shrubs, completely wrapped, each bale weighing 100 lbs., or over, are entitled to second-class rate.

Charles City, Ia., Dec. 28, 1898.

E. M. SHERMAN.

TRANSPORTATION SUGGESTIONS.

Editor NATIONAL NURSERYMAN :

It seems to me the chief trouble with the railroads at the present is the trouble that sometimes comes from delay in transfer of goods from one run to another and some inequalities in charges that should be rectified. I do not think we should make any effort for what may be called a flat reduction, but our efforts should be directed toward securing such arrangements as would more certainly secure quick transportation and more certainty of our goods going from point of shipment to point of delivery without delay at point of transfer or any other point enroute. It seems to me a good deal of work could be done in this line that would be very helpful to us. We often, as shipping arrangements are now, have delays and troubles in this line and sometimes suffer serious loss in our business and sometimes on the stock from the delay in transportation.

There is another trouble that is a very serious matter to nurserymen sometimes. When we ship our retail deliveries to points of delivery, we have them there often a day or two, and if the distance to ship is considerable and if there are some transfers on the line, when the liability to delay is considered, we must ship a considerable time in advance of delivery and if then, as sometimes happens, the goods go to point of delivery promptly, they are at the point of delivery several days ahead of time. We have studied this matter a good deal and we are unable with the present uncertainties of shipment to avoid this. Now if, as sometimes happens, the station agent is neglectful of the interests of his customers when the perishable nature of the goods is considered, there is danger of serious loss. We had a case the past fall. The agent was very neglectful of his duty to us and there is likely to be serious trouble on account of it. We often have complaints of this kind and some of them very serious. If some plan could be devised to secure the prompt forwarding of goods shipped and the proper care of goods at the point of delivery,

I think there would be a great advance toward securing the service from the railroads we are entitled to ask.

There is one further item we should ask for. The present arrangement is that all bales shipped, in order to be entitled to be received as first-class freight must average not less than 100 lbs. weight. This should be reduced to 50 lbs. It could be and make us a saving in packing; and no railroad station agent would complain because we did not ask him to lift a full 100 lbs when he had to lift one of our packages. It does not seem possible that when the great bulk and light weight and low valuation is considered we could stand an advance of freight charges. As it is I often pay from 25 to 50 per cent. of the value of the goods as freight charge and it seems to me that is pretty high.

A. WILLIS.

Ottawa, Kan., Dec. 23, 1898.

WESTERN WHOLESALERS.

The Western Association of Wholesale Nurserymen held its semi-annual meeting at the Hotel Savoy in Kansas City, Mo., Dec. 13th. Nearly the full membership was present.

The following officers were elected for the ensuing year : President, A. L. Brooke, North Topeka, Kans.; vice-president, R. H. Blair, Kansas City, Mo.; secretary and treasurer, U. B. Pearsall, Fort Scott, Kan.; executive committee, A. Willis, Ottawa, Kans., chairman; Peter Youngers, Jr., Geneva, Neb.; E. S. Welsh, Shenandoah, Ia.; J. L. Bagley, New Haven, Mo.; E. J. Holman, Leavenworth, Kans.; committee on transportation, J. H. Skinner, North Topeka, Kans.; F. H. Stannard, Ottawa, Kans.; J. W. Schutte, South St. Louis, Mo.; committee on tariff, Peter Youngers, Jr., Geneva, Neb.; E. W. Stark, Louisiana, Mo.; A. C. Griesa, Lawrence, Kans.

The usual routine of business was transacted. The past season has been fairly prosperous. Collections have been better than usual except in Oklahoma and some other localities, where local causes affected the condition of the people.

The supply of stock for spring is much lighter than usual, especially apple trees, but the planting is checked by failure of the fruit crop, so possibly there may be enough to supply the demand. The plant for spring of 1899 will be about the same as last year.

The next meeting of the association will be held in Kansas City, Mo., on the second Tuesday in July, 1899.

The members of the association are as follows :

J. Wragg & Son, Wauke, Ia.; Blair & Kaufman, Kansas City; R. H. Blair & Co., Kansas City; Brewer & Stannard, Ottawa, Kans.; A. L. Brooke, North Topeka, Kans.; Bush & Son & Meissner, Bushberg, Mo.; Wm. Cutter & Son, Junction City, Kans.; A. H. Griesa, Lawrence, Kans.; A. C. Griesa & Bro., Lawrence, Kans.; W. H. Heikes, Huntsville, Ala.; Holman & Bente, Leavenworth, Kans.; Jewell Nursery Company, Lake City, Minn.; D. S. Lake, Shenandoah, Ia.; New Haven Nurseries, New Haven, Mo.; Peters & Skinner, Topeka, Kans.; Schutte & Czarnowski, St. Louis; Stark Bros., Louisiana, Mo.; L. R. Taylor & Sons, Topeka, Kans.; Sedgwick Nursery Company, Sedgwick, Kans.; E. S. Welsh, Shenandoah, Ia.; Williams & Bernardin, Parsons, Kans.; A. Willis, Ottawa, Kans.; Youngers & Co., Geneva, Neb.

For the encouragement of tree culture in some of the prairie countries of Minnesota the state legislature appropriates annually \$20,000. Last month State Auditor Dunn distributed this fund among 2,800 applicants. Every man who plants and grows an acre of trees receives \$2.40 per acre as a bounty. No one is allowed a bounty on more than ten acres. The distribution indicates the planting of 8,147 acres of trees.

AMERICAN FRUIT LISTS.

The Natural Way to Devise Them Pointed Out By Hon. C. L. Watrous—Improve Fruits Indigenous to the Area in Question—Nature Will Prevail Regardless of Temporary Successes—Valuable Books—Fruits for State of Iowa.

At the annual meeting of the Iowa State Horticultural Society at Des Moines last month Hon. C. L. Watrous read a paper on "The Natural Way to Revise Our Fruit Lists." After referring to the deductions of Charles Darwin in his "Origin of Species," Mr. Watrous said:

Many other students have devoted themselves to broadening and illuminating the truths discovered by Darwin. Alfred Russell Wallace, the Englishman, in his great book "Geographical Distribution of Animals" shows that the geography of the earth is well marked by the specific differences of the animals and plants inhabiting its different regions. In his book entitled "The Malayan Archipelago" and that other called "Island Life" he gives the results of other years of travel and study. Everywhere differences in climate showed different plants, animals, insects, and birds; and differences in animal and vegetable life proclaimed differences of latitude or of elevation, without consulting maps. Our own Asa Gray has written with wondrous wisdom and charm of his studies confirmatory of the same truths. His most notable contribution being his presidential address before the American Association for the Advancement of Science, in 1872. That address is the finest exposition in the English language of the facts that the plants of Eastern America find their nearest relatives among those of Eastern Asia and Japan, while those of Europe find their likenesses along the western shores of America. This accounts for the well-known facts that the wine and raisin grapes, the almonds and walnuts and olives of Europe find congenial homes in California, but fail on our eastern coasts where many plants from China and Japan thrive and multiply

LIFE AND CROP ZONES.

In 1898 there has appeared from our own Department of Agriculture, Division of Biology, a modest pamphlet entitled "Life Zones and Crop Zones of the United States" embodying the results of a scientific survey of our own country. In his introduction, Professor Merriam says that "it was early suspected that the life zones of native plants, animals and birds marked also the limits of profitable culture of different varieties of farm crops and fruits," and that this has since been fully established. In making conclusions from published statistics he finds one of the chief difficulties to be that nearly all published matter is arranged by states and counties and without regard to climatic areas and that "another difficulty is the over sanguine attitude of many fruit growers and horticultural societies, particularly in the West, where innumerable varieties are reported as succeeding in places where they have not been tested a sufficient length of time."

Whether or not any of us has ever done anything worthy of such reproach, the warning is one that we may all properly take to ourselves and profit thereby. He says that it was early learned that North America is divisible into seven trans-continental life zones and a much larger number of areas, each characterized by particular associations of native animals and plants, and that it is the limits of these areas that the farmer and fruit grower disregards at his peril. The pamphlet is one

long warning that no matter what temporary successes may be had, yet in the end, nature has her way and men must conform. These zones are shown in bright colors, green, blue, yellow, etc., upon the accompanying map which deserves the most careful study by every fruit planter. A study of this chart will explain why reports of the successes of fruits in the high regions of Colorado and the northern regions of Wisconsin and Vermont, though originated further north, serve only to darken counsel and lead to danger unless accompanied with the warning that those regions all belong to more northern zones than ours, and that we should therefore be cautious in planting them. Inspection shows that the boreal or coldest region (colored green) comes down in our longitude to about latitude 46, then follows 350 miles of transit in (colored blue) its south limit coming down only slightly into Central Northern Iowa, to be succeeded by the yellow of our life zone extending across Iowa and Missouri. This explains the difficulties with foreign fruits from the boreal region of another continent in latitude 55 to 57, twelve to fifteen degrees north of Central Iowa.

IN NATURE'S WAYS.

It is now submitted that until these conclusions of science have been disproved we shall be safe in working towards a revision of our fruit lists in nature's ways; that in adding new fruits, those from our own area or from one differing least from ours may be most safely admitted and vice versa; that in breeding new fruits, those already thriving here are more likely to produce healthy and long-lived offspring than those from a different life zone, and that those from a different life area can be fully adapted by nature's way only. They must die and be born again, through seed. Dr. Draper says it takes four generations of men to turn Europeans into Americans. An open-eyed volunteer in Florida the past summer wrote "I have yet to see a native with the ruddy color of Iowans. There are to-day but six of us out of 100 fit to drill." Not one of us in this room has forgotten Santiago and what its climate did to our soldiers.

Professor Merriam, says mournfully that ignorance or disregard to these facts developed by the biological survey costs the farmers of the United States hundreds of thousands annually and that the longer the time occupied in the test, as in fruits, the greater must be the final loss, and that while railroaders, miners, and manufacturers employ skilled scientists to advise and carry out their plans, farmers have been left to grope in the dark.

I wish that every member of this society would write to the Department of Agriculture for bulletin No. 10, Division of Biological Survey and study it well, and that as many as can would obtain and study at least, two books of that foremost of all American horticultural writers, Professor L. H. Bailey, "Plant Breeding," and "The Evolution of our Native Fruits." When these three books have been thoroughly understood, all our dissensions about foreign fruits will cease and we shall be ready, heartily and unitedly, to work with our new professor of horticulture in adding fruits to our lists in nature's way.

FRUITS FOR IOWA.

The weakest place in our fruit lists is in winter apples. You all know that there is not one satisfactory winter apple in Northern Iowa. I submit that the natural way is to try to breed some from those already here. My own belief is, as published some twelve years ago, that our native apples and

their hybrids afford the most promising ground work. Professor Bailey plainly advises us to try this line. I have a pure native or hybrid as large and twice as heavy as an average Ben Davis, and there are several others of like parentage. The quality is lacking, but the trees are adapted to our soil and climate and the fruits are all keepers.

This work need not and should not interfere with any other promising line of advance. The same need and the same promising basis exist in our grape and gooseberry lists. Our plums are already civilized and Professor Bailey advises that a certain western cherry, "Prunus Besseyi," be brought in upon the reservation and taught civilized ways. We need and shall surely have new cherries. We now have the great advantage of scientific and willing assistance at our Central Experiment Station. I trust a suitable committee may be appointed to consult with him and present a plan to join our efforts and our funds with his and that the work may, under his enlightened guidance, make rapid strides. It was fitly said two thousand years ago, and it is as true to-day, "Concerning the departed it is meet to hold silence if we can speak no good."

Long and Short.

A new blackberry, the Mersereau, is offered by Wiley & Co., Cayuga, N. Y.

Kieffer pear trees are wanted at Patterson's Nurseries, Stewartstown, Pa.

Apple root grafts and apple seedlings can be obtained of J. A. Gage, Fairbury, Neb.

F. H. Bruning, Kent, Iowa., has one million Platte Valley Red Cedar grown from seed.

Raspberry tips and other small fruit plants may be had of J. W. Cogdall, Springfield, Ill.

Everything in small fruit plants can be obtained from W. N. Scarff, New Carlisle, O.

A foreman and two first-class nurserymen are wanted by Stanley H. Watson, Brenham, Tex.

Joseph Hampton Dodge, Rochester, N. Y., would like to handle a retail branch for a grower.

Any old name will be printed on wood labels by Benjamin Chase, Derry, N. H. Also any new names.

A general line of fruit stock is offered by H. M. Simpson & Sons, Vincennes, Ind. They solicit a list of wants.

A surplus stock of standard and dwarf pears, plums, sweet cherries and currants, is held by Lewis Roesch, Fredonia, N. Y.

Glove pruned trees, smooth bodies, heads and grade right, is the offer of the Spaulding Nursery and Orchard Co., Spaulding, Ill.

Well-rooted, hardy shrubs, trees, vines, evergreens and perennials, grown in sandy soil, are offered by T. R. Watson, Plymouth, Mass.

Three kinds of sprayers are made by the Deming Co., Salem, O., the bucket, knapsack and barrel sprayers. Each of them makes an emulsion of kerosene while pumping.

The Sherman Nursery Co., Charles City, Iowa, has a surplus of apple trees, evergreen seedlings, strawberry, raspberry and blackberry plants from root cuttings; also roses on own roots.

Jackson & Perkins Co., Newark, N. Y., have a large stock of ornamental trees and shrubs in addition to their fruit list. They make a specialty of Yellow Rambler roses and Cumberland and Iceberg blackberries.

When all others fail to supply the want, try the Storrs & Harrison Co., Painesville, O., who grow as healthy, hardy and complete a list of nursery stock as can be found between the oceans. They have reserved a larger amount than usual of the leading items. See their attractive announcement.

Recent Publications.

An interesting bulletin just issued by the Division of Forestry, U. S. Department of Agriculture, treats of the measuring of forest crops.

"The Pecan Tree and How to Grow It" is the subject of a little book dedicated to Colonel W. R. Stuart, Ocean Springs, Miss., who is styled the father of pecan culture.

The proceedings of the Georgia State Horticultural Society at its August meeting at Americus have been issued by the secretary, G. H. Miller, Rome, Ga. They form a pamphlet of 127 pages in which many topics of general interest are ably discussed. P. J. Berckmans, Augusta, is president; Louis D. Berckmans, treasurer.

Professor S. B. Green of the University of Minnesota has prepared a timely book on the forestry of his state. It is for classes in forestry in the university. The work is divided into two parts, treating of elementary forestry and the trees of Minnesota. The trees and tree growth, forest influences, tree planting, forest management and rate of increase on trees, durability and fuel value of wood, propagation, nursery work and injuries to tree growth are subjects of chapters. There is a glossary and index. It is the first American book on forestry adapted to the use of schools as well as to the amateur in tree growing. Ten thousand copies have been printed. 25 cents. Pp. 312, Minneapolis: MINNESOTA FORESTRY ASSOCIATION.

Dr. A. C. True, director of the office of Experiment Stations, in his report to the Secretary of Agriculture of the operations of that office during the fiscal year ended June 30, 1898, states that the agricultural experiment stations are, as a rule, working more thoroughly and efficiently for the benefit of American agriculture than ever before. The appropriation of \$720,000 by congress for the support of the stations was supplemented by over \$400,000 state funds.

While the number and importance of institutions organized for scientific researches on behalf of agriculture are constantly increasing in all parts of the world, nowhere has so comprehensive and efficient a system of experiment stations been established as in the United States.

Another of the Rural Science Series of books edited by Professor L. H. Bailey, "Fertilizers," by Edward B. Voorhees, A. M., director of New Jersey Experiment Stations and professor of agriculture in Rutgers college has been issued by the Macmillan company. The work treats of the source, character and composition of natural, home made and manufactured fertilizers and gives suggestions as to their use for different crops and conditions. Nurserymen will be especially interested in the chapter relating to the use of fertilizers and with orchard fruits and berries. "Progressive fruit culture," says Professor Voorhees, "demands that quite as much attention shall be given to the matter of providing proper plant food as is now known to be desirable for other and more common crops of the farm grown for profit." Fruit crops differ from general farm crops and special fertilizing methods are required. Although the subject is large and the author appreciates his limitations, he has produced a very instructive work. Pp. 335, Cloth, \$1.00. New York: THE MACMILLAN COMPANY.

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This is the only trade journal for nurserymen.

Nursery news of two hemispheres for \$1 per year.

FORESTRY IN MICHIGAN.

At the annual meeting of the Michigan State Horticultural Society last month, Charles W. Garfield of Grand Rapids outlined the work which the University of Michigan is doing in the forestry movement under the leadership of Professors Beal and Kedzie. Through the bulletin sent out by the college 30,000 citizens of Michigan are being reached. Continuing, Mr. Garfield said in part: "Forestry is the greatest agricultural movement before the people of Michigan to-day. Climatic changes have been brought about by the denuded areas where formerly there were great forests. We must bring back some of the conditions we have lost. The southern tiers of counties in Michigan, once the finest apple producing districts in the world, are now only mediocre. We want to prevent those to the north of us from hurting themselves further and we want to be helped down here.

"This society was the pioneer in the forestry movement and we shall keep at it until we see a state commission which will

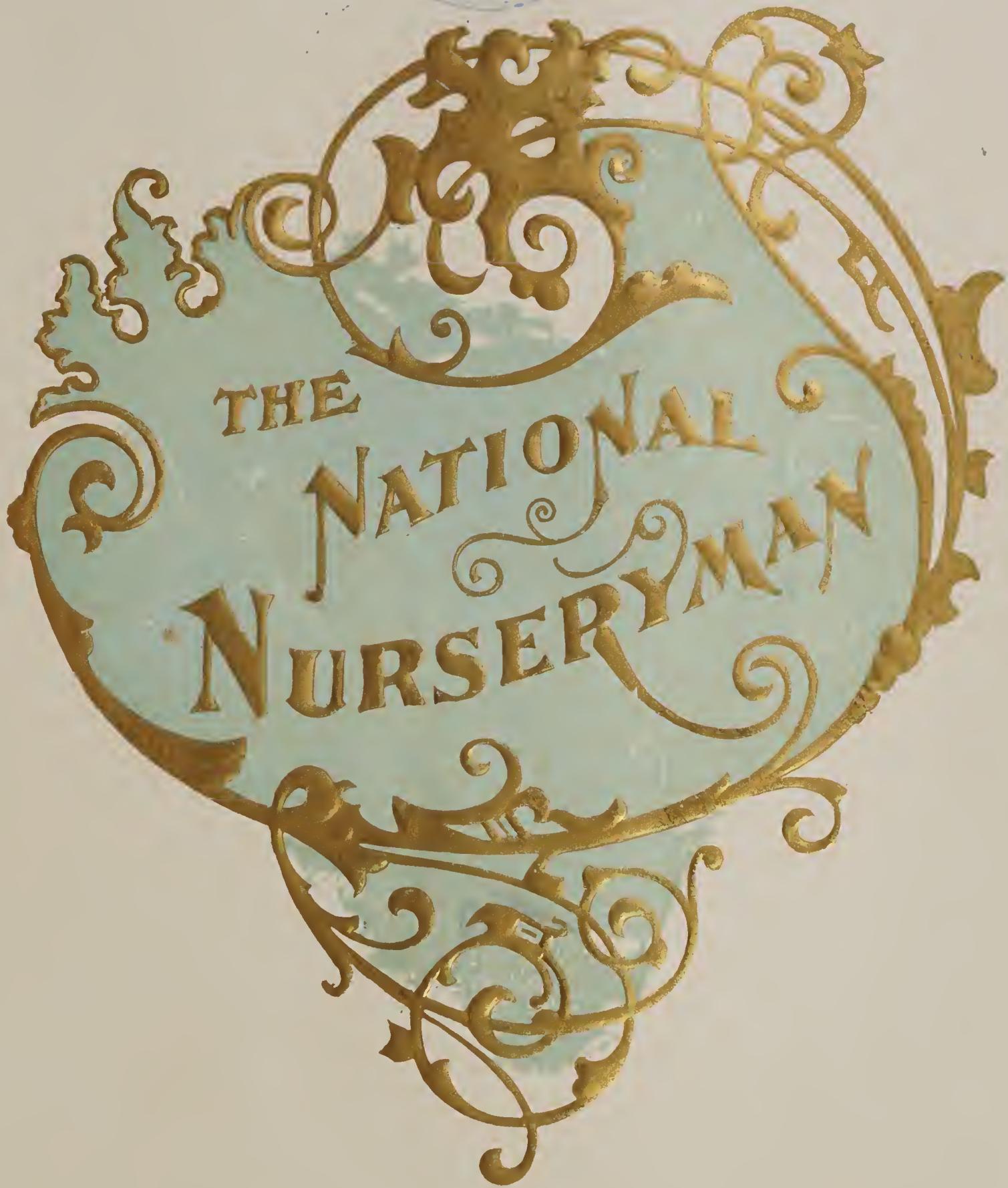
tackle the problem. Long ago Professor Kedzie suggested that the state should say to anyone who would set aside his land or a part of it for woodland 'we will exempt such property from taxation,' but others are forward now and claiming the idea as original. In New York and New Jersey they are taking great interest in these matters, and Michigan should be in the van. We are going to strike this winter and back up every effort. The joint committee from the university, the agricultural society and other societies will meet in Lansing in the January session and hope to formulate a bill which shall become a law. Senator Graham of Grand Rapids will push it strongly and others are with us."

Professor Van Deman says that Reagan is said to be the correct name for the "Black Ben Davis" apple; Collins is the correct name for the apple variously known as Collins' Red, Champion Red and Champion; Oliver is the correct name for the Senator apple and Beach is the name given by the Arkansas Horticultural Society for the Apple of Commerce.

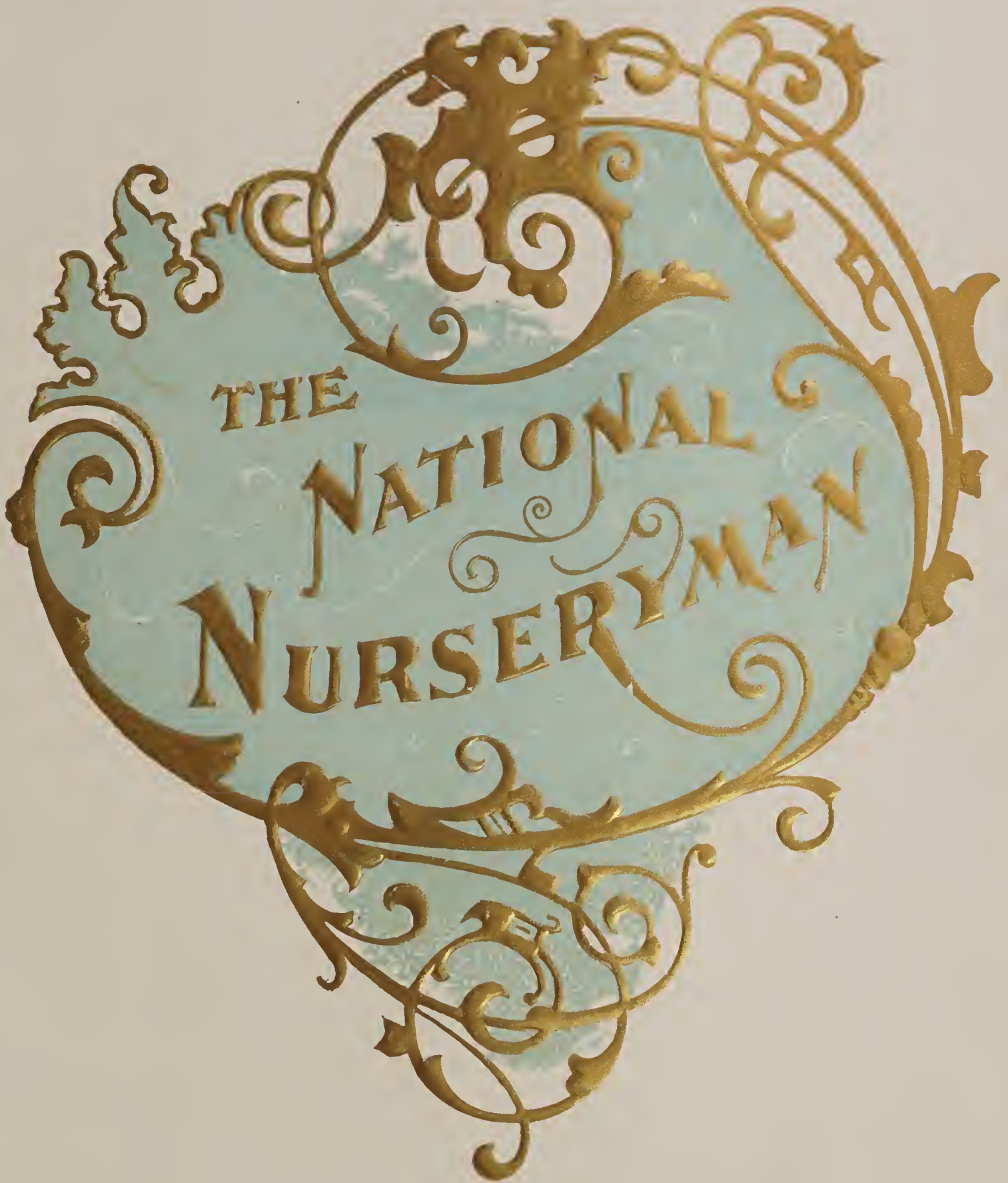
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March, 1898.

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Apples, Cherries, Figs, Pears, (an extra fine lot of 100 000 standard 2 and 3 years, largely of Kieffer), Paper Shell Pecans, Plums (Japan) on Marianna, English Walnuts, Grape Vines, etc. **Peach Trees** in car load lots.

EVERBEARING PEACH

A valuable novelty now offered for the first time.

Ornamental Department.

150,000 Amoor Privet—Unsurpassed as an evergreen hedge plant.
50,000 Citrus Trifoliata—Japan Hardy Lemon; best defensive hedge plant, stands 15 degrees below zero.

150,000 Roses—Field grown, including 30,000 Marchael Niel budded upon Manetti, 3 to 5 feet.

Two acres in Canna.

Azaleas (home grown).

Broad leaved Evergreens, etc., etc., Biota Aurea Nana, Cedrus Deodora, Retinosporas and other rare coniferae.

Greenhouse Department.

100,000 Palms—(An especially fine lot of Latanias, Phoenix, Pandanus and Cocos Weddelliana.)

Ficus, Decorative Plants, Crotons, Bedding Plants, 10,000 Camphor Trees, Sub-Tropical fruits, etc.

Send for trade list and descriptive Catalogue.

PEACH TREES, CURRANTS.

Do you Wish to Purchase Nursery Stock?

Try the **KINSEY NURSERIES,**

A long established firm, and see if the varieties you get do not prove true to name, and also whether you will not be entirely satisfied with your purchase in other respects.

WE GUARANTEE SATISFACTION TO OUR CUSTOMERS.

We grow a general line of nursery stock, but are especially long on

Peach, Quince, Currants,

Houghton Gooseberries, Rhubarb, Asparagus,

Silver-Leaved Maple, Siberian Arborvitæ,

Pyramidalis Arborvitæ and Balsam Fir.

We solicit correspondence.

SAMUEL KINSEY & CO.,
KINSEY, O.

Bargains in....

* HIGH GRADE STOCK

SPECIALTIES IN FRUIT.

APPLES. Sutton Beauty and Walker Beauty.

ST'D PEARS. Beurre Bosc and Easter Beurre.

CHERRIES. Gov. Wood and Montmorency.

PLUMS. Empire, Wickson and Tennant Prune.

RASPBERRIES. Columbian and Turner.

GOOSEBERRIES, CURRANTS.

SPECIALTIES IN ORNAMENTAL

Cut Leaf Birch, Horse Chestnut, Norway Maples, Sugar Maples,

Lindens, Magnolias, Rhododendrons, Ampelopsis Veitchii,

Tree Roses, Bignonia, Herb Paeonias,

Clematis.

DEALERS' COMPLETE LISTS RECEIVE SPECIAL ATTENTION.

TRADE LIST ON APPLICATION.

W. & T. SMITH CO.,

GENEVA NURSERY,

GENEVA, N. Y.

600 Acres.

Established 1852.

13 Greenhouses.

ROSES ALL ON OWN ROOTS OUR OWN GROWING

Large Stock of Leading Varieties,

Hybrid Perpetuals, Moss and Climbing, Field Grown,

Dormant, 2 Years. Everblooming and Hybrid

Perpetuals, from 4 inch Pots.

Prices and List of Varieties Sent on Application.

Keiffer Pears

STANDARD, FOR SPRING '98.

Very Large and Fine Stock of 6 to 8, 5 to 7, and 4 to 6 feet, at Low Prices in Quantity.

A complete line of Nursery and Greenhouse Stocks.
Send for Trade List.

PHOENIX NURSERY COMPANY,

P. O. Box 625.

BLOOMINGTON, ILL.

✦ Strawberry Plants ✦

We can furnish the list of varieties below and the price will astonish you conceding quality of plants. We can dig any day. Have already been shipping South.

Anna Kennedy, (Imp.)
 Brandywine, (Per.)
 Bismark, (Per.)
 Bubach No. 5, (Imp.)
 Barton's Eclipse, (Per.)
 Bedar Wood, (Per.)
 Berlin, (Imp.)
 Beverly, (Per.)
 Brunette, (Per.)
 Clyde, (Per.)
 Cyclone, (Per.)
 Crescent, (Imp.)
 Captain Jack, (Per.)
 Dayton, (Per.)
 Devereaux,
 Evans, (Per.)
 Enhance, (Per.)
 Eleanor,
 Enormous, (Per.)
 Glen Mary, (Per.)
 Gandy, (Per.)
 Gertrude, (Per.)
 Giant, (Per.)
 Gandy Belle, (Per.)
 Greenville, (Imp.)
 Gardner, (Per.)
 Haverland, (Imp.)
 Hoffman, (Per.)
 Holland, (Per.)
 Henry W. Beecher, (Per.)
 Jessie, (Per.)



Kansas Prolific.
 Lady Thompson, (Per.)
 Lovett, (Per.)
 Lloyd's Favorite, (Per.)
 Marshall, (Per.)
 Magoon.
 Marguerite, (Per.)
 Michigan, (Per.)
 Mitchel's Early, (Per.)
 Morgan's Favorite, (Per.)
 Meek's Early, (Per.)
 Mary, (Imp.)
 Ocean City, (Per.)
 Oriole.
 Princess, (Imp.)
 Perfection.
 Rio, (Per.)
 Saunders, (Per.)
 Splendid, (Imp.)
 Star, (Per.)
 Satisfaction, (Per.)
 Sharpless, (Per.)
 Staples, (Per.)
 Sunnyside, (Imp.)
 Tennessee Prolific, (Per.)
 Tennyson.
 Van Deman, (Imp.)
 Wm. Belt, (Per.)
 Warfield, (Imp.)
 Wilson, (Per.)
 Woolverton, (Per.)

	5 to 6 ft.	4 to 5 ft.	3 to 4 ft.	2 to 3 ft.	1 to 2 ft.		5 to 6 ft.	4 to 5 ft.	3 to 4 ft.	2 to 3 ft.	1 to 2 ft.
Amsden June		100	500	500	500	McIntoch	200	200	100	.....	.....
Bray's R. Ripe....	2,000	7,000	6,000	2,000	1,000	Morris' White....	1,000	2,000	1,000	500	300
Crawford's Late...	4,000	15,000	15,000	15,000	300	Mt. Rose.....	.....	.....	3,000	1,000	.....
Champion.....	.....	.....	2,000	300	.....	New Prolific.....	1,000	1,000	500	1,000	.....
Chair's Choice....	1,000	5,000	2,000	1,000	500	Old Mixon Free...	4,000	6,000	4,000	4,000	1,000
Crosby .....	.....	800	4,000	1,500	1,000	Reeve's Favorite...	8,000	4,000	500	.....	.....
Elberta.....	8,000	9,000	9,000	4,000	1,000	Stephens R. Ripe .	2,500	4,000	3,000	2,000	300
Early Rivers.....	100	500	500	500	500	Smock.....	4,000	4,000	4,000	4,000	1,000
Fox Seedling.....	4,000	4,000	4,000	2,000	1,000	Snow's Orange ...	2,000	2,500	2,000	1,000	1,000
Ford's L. White...	.....	800	500	300	.....	Stump the World..	5,000	7,000	5,000	4,000	1,000
Geary's Holden ...	5,000	6,000	3,000	3,000	1,000	Sneed.....	500	2,000	1,000	1,000	200
Greensboro.....	1,500	1,800	500	500	300	Triumph.....	500	800	3,000	2,000	500
Gold Drop.....	800	2,500	2,000	1,000	500	Troth's Early	500	1,000	300	300	200
Globe.....	.....	2,000	4,000	3,000	1,000	Wonderful.....	1,000	1,000	1,000	300	300
Hill's Chili.....	300	100	100	200	100	Wheatland.....	300	800	800	500	200
Hale's Early .....	.....	.....	500	500	200	Wager .....	.....	100	200	300	100
Kalamazoo .....	.....	.....	100	300	.....	Walker's G. Free..	300	2,000	1,800	1,000	300
Lemon Free.....	500	1,000	2,500	1,000	500	Yellow St. John...	.....	1,000	2,000	1,000	500
Moore's Favorite..	4,000	4,000	4,000	3,000	1,000						

PEACH TREES UNSOLD.

Special low prices on car lots if order sent at once. We have a light supply of all varieties.

Plum on Plum—Abundance, Burbank and Satsuma. Plum on Peach—Abundance, Burbank, Satsuma, Bradshaw, Chatbott, Red June, Kelsey and Imperial Gage. Asparagus Roots—Columbian, White Donalds, Elmira, Palmetto, Conover's and Barrs, one and two year roots. Send your list of wants to-day.

HARRISON'S NURSERIES, - BERLIN, MD.

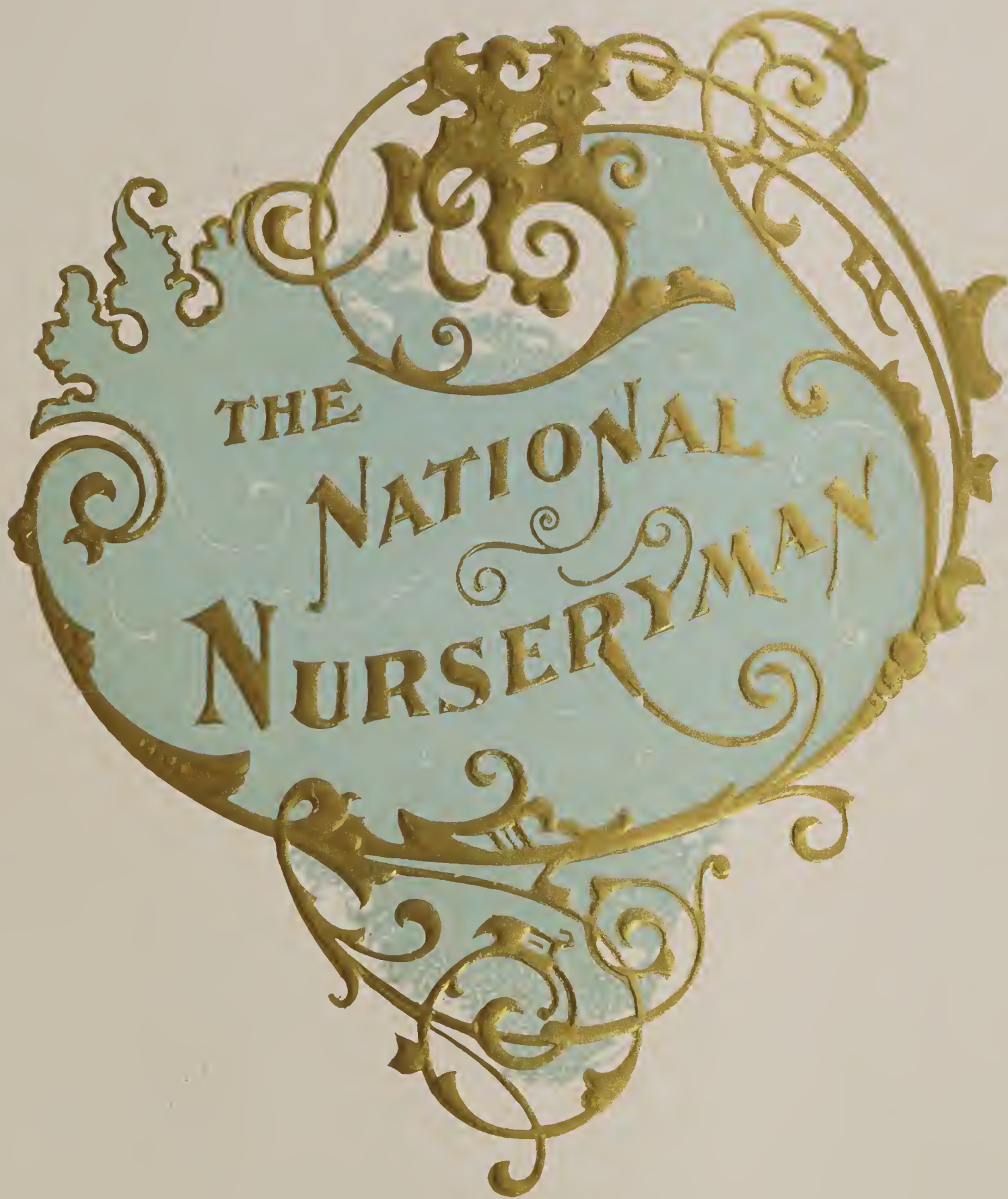
TO WHOM IT MAY CONCERN.

THIS IS TO CERTIFY that on the 24th and 25th days of August, 1897, I personally examined the Nursery Stock of J. G. Harrison & Sons, grown in their Nurseries at Berlin, County of Worcester, State of Maryland, and found no indications of the presence of San Jose Scale, Peach Yellows, Rosette or other dangerously injurious insects or Plant Diseases that might be transferred upon Nursery Stock. This Certificate is invalid after June 1st, 1898, and does not include Nursery Stock not grown within this State, unless such stock is previously covered by certificate and accepted by the State Entomologist.

College Park, Md., August 30th, 1897.

WILLIS G. JOHNSON,

State Entomologist.



April, 1898.

Painesville



Nurseries.

Located on the shore of Lake Erie, thirty miles east of Cleveland, grow as healthy and hardy nursery stock as can be found between the oceans, consisting of one of the most complete assortments of

*Fruit and Ornamental Trees, Small Fruits, Nut
Bearing Trees, Grape Vines, Shrubs, Roses
Hardy Herbaceous Plants, Climbing Vines
Bulbs and Greenhouse Plants. . .*



Have in Special Surplus.

Mulberry—New American; 4 to 5 and 5 to 6 feet.
Chestnuts—Ridgely, Numbo and Parry's Giant; 4 to 6 and 6 to 7 feet.
Walnut—Japan, Sieboldi; 4 to 5, 5 to 6 and 6 to 8 feet.
 " —English; 2 to 3 and 3 to 4 feet.
 " —Black; 4 to 6, 6 to 8 and 8 to 10 feet.
Persimmon—American; 4 to 5, 5 to 6 and 6 to 8 feet.
Currants—Strong 2-yr.; full assortment.
Gooseberries—Strong 2-yr. and 3-yr.
Blackberries—Especially Snyder, Agawam and Early Harvest; grand root cutting plants.
Dewberry—Lucretia; also **Raspberries, Strawberries** and **Asparagus**.
Fruit Trees—Extra surplus notably some sorts of **Pear, Plum, Cherry, Peach**.

ORNAMENTAL DEPARTMENT

Especially heavy in

Birch—European White, 10 to 12, 12 to 15 and 15 to 20 ft.
Beech—Purple-leaf; 2 to 3, 3 to 4 and 4 to 5 feet.
Maple—Silver; 8 to 10, 10 to 12, 12 to 15 and 15 to 20 feet.
 " —Norway; 8 to 10, 10 to 12 and 12 to 15 feet.

Magnolia—Acuminata; 4 to 6, 6 to 8 and 8 to 10 feet.
Mountain Ash—5 to 6, 6 to 8 and 8 to 10 feet.
Poplars—Carolina and Lombardy; 8 to 10, 10 to 12 and 12 to 15 feet.
Willows—Gold-bark and Laurel-leaved; 5 to 6, 6 to 8 and 8 to 10 feet.

WEeping TREES.

Birch—Young's; 4 to 6 and 6 to 8 feet.
Elm—Camperdown and Fulva Pendula, 1 and 2 yr. heads.
Ash—Mountain; 1 and 2-yr. heads.
Willows—Kilmarnock and New American; 1 and 2 yr. heads; Wisconsin, 6 to 8 and 8 to 10 feet.

EVERGREENS.

Arbor Vitæ—American; 1½ to 2, 2 to 3 and 4 to 5 feet.
 " —Hovey's Golden; 1½ to 2 and 2 to 3 feet.
 " —Pyramidalis; 2 to 3, 3 to 4, 4 to 5 and 5 to 6 ft.
 " —Siberian; 1½ to 2 and 3 to 3½ feet.
Spruce—Norway; 1½ to 2, 2 to 3 and 3 to 4 feet.
 " —White; 2 to 3 feet.



*Please let us know your wants and
we will quote you bottom prices. .*

The Storrs & Harrison Co.,
PAINESVILLE, O.

"The most complete Nurseries on the American Continent."

THE MOUNT • • HOPE • • NURSERIES,

ROCHESTER, N. Y.

ELLWANGER & BARRY Proprietors.

Established over fifty years ago, and still under the same management.

The largest and most complete collections of General Nursery Stock ever offered; the most approved varieties of FRUIT TREES, new and old, Grape Vines, Currants, Raspberries, Gooseberries, etc.

Superb collections of ORNAMENTAL TREES and SHRUBS, both deciduous and evergreen. HARDY ROSES, HARDY HERBACEOUS PLANTS, HERBACEOUS PÆONIES. HARDY PHLOXES.

Fine stock of Gooseberries and Currants.

Wholesale catalogue mailed free on request.

70,000 Berberry, 18 to 24 inch.
100,000 do 12 to 18 inch.
200,000 do 8 to 12 inch.
150,000 do 6 to 8 inch.
1,000,000 Gardner Strawberry.
100,000 Silver Maple, 2 to 3 ft.
75,000 do 1 to 2 ft.
200,000 Picea Pungens, all sizes.
100,000 Ponderosa Pine, 4 to 6 inch.
50,000 Mt. Ash, stocky, for lining out, 2 ft.

Write for prices to,

GARDNER & SON, PROP'S.,

Osage Nurseries, Osage, Ia.

APPLE SEEDLINGS—carefully graded.

PEACH TREES—No Yellows or Rosette in Nebraska.

LARGE SHADE TREES—2 to 3 inch and smaller sizes.

FOREST SEEDLINGS—Black Locust, Box Elder.

ASH AND SILVER MAPLE.

OSAGE HEDGE PLANTS.

Everything the best and prices right. Apple Grafts made to order. Our stock is all grown on new land and free from insects or disease.

YOUNGERS & CO.,

GENEVA, NEB.

When writing to advertisers mention The National Nurseryman.

"ORDER-GETTERS"

Is what the Nursery Agents call our three Specialties.

Yellow Rambler Rose • • •

The only Hardy Yellow Climber.

LORD PENZANCE'S

Hybrid Sweet Briars • • •

Very valuable and pleasing novelties.

Cumberland (TRADE MARK.) **Raspberry**

The largest black-cap known.

Free Plates

of these valuable novelties furnished to all reliable houses who will handle them.

**Handsome
Descriptive
Circulars**

at less than cost.

They not only sell well themselves but they "break the ice" for further orders. *Send for Sample Plates and Circulars.*

ALSO write us when wanting

ORNAMENTAL SHRUBS,
CLIMBING VINES,
GOOSEBERRIES,
RASPBERRIES,
PEACHES,

ORNAMENTAL TREES,
ROSES,
BLACKBERRIES,
ASPARAGUS,
PLUMS, PEARS,

CLEMATIS,
CURRANTS,
GRAPE-VINES,
APPLES,
QUINCES.

If needing Std. Pears or Peaches we can interest you. We have a large stock of extra fine strong trees, guaranteed free from scale or disease, and we will not be undersold.

Jackson & Perkins Co.,

NEWARK, Wayne Co., NEW YORK.

Growers of CHOICE SPECIALTIES for NURSERYMEN and DEALERS.

Smiths & Powell Co.,

Syracuse, N. Y.,

offer a large and choice stock of

**BUDED APPLES,
STANDARD AND DWARF PEARS,
PLUMS, CHERRIES, PEACHES,
ROSES, ORNAMENTAL TREES,
SHRUBS AND VINES.**

Our stock is of superior quality and most carefully graded. Send us your want list or come and see our stock. We issue no trade price list, but will make low prices by letter.

Do not forget the **OLD RELIABLE SYRACUSE NURSERIES.**

Andre Leroy Nurseries

ERRAULT & SON, Directors,

ANGERS, FRANCE.

Offer for shipment Fall 1897 and Spring 1898, their large stock of fine, well graded Fruit Seedlings, Ornamentals, Roses, etc.

Apply for special quotations to

ANDRE L. CAUSSE, Agent,

105 and 107 Hudson Street, New York.

Rate, including all shipping charges from Angers to f. o. b. New York given on application.

When writing to advertisers mention The National Nurseryman.

200,000 Peach Trees, | 100,000 Blackberry,
2,000,000 Strawberry Plants, | 500,000 Raspberries.

Eldorado, Maxwell and Lucreiat Blackberries.

MILLER, LOUDON and
COLUMBIAN . .

TRIUMPH,
GREENSBORO and EMMA,

and a full
assortment of

Raspberries.

Wickson, Red June and Giant

Peaches

PLUMS. . . . AND OTHER FRUIT.

It will be to advantage of those in the trade to correspond
with us.
Our Catalogue will save you money.

MYER & SON,

BRIDGEVILLE, DELAWARE.

Peach and Plum Trees . . .

FOR SPRING DELIVERY 1898.

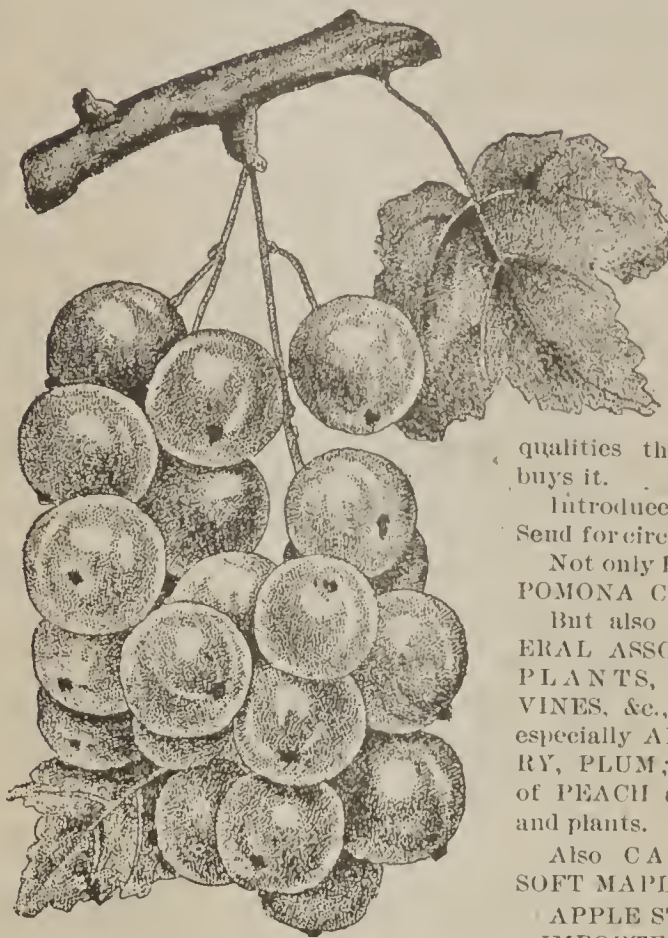
All desirable leading old and new varieties of Peaches here in fruiting orchards. Have the new **Triumph, Greensboro** and **Sneed** fruiting. Buds can be supplied in season at low rates. Large stock of **Plum** trees, all on Plum roots, one and two year. Buds in season from either nurseries or orchard trees. Have all the leading Japanese varieties, **Abundance, Burbank, Chabot, Satsuma, Willard** and others. Also in good supply the new **Red June** and **Wickson**. Have the usual supply of **Asparagus Roots** to offer. Two and three years old. strong.

ALEXANDER PULLEN,

Milford Nurseries.

MILFORD, DEL.

THE POMONA CURRANT.



The BEST SPECIALTY for the AGENTS for 1897 and 1898.

WHY? Because it is the best MONEY MAKER for the people to plant.

It is BEST in QUALITY.

Its returns come in the *quickest* and *surest*.

These being the qualities the planter is after, he buys it.

Introduced and for sale by us. Send for circulars, plates, terms, &c.

Not only have we a good stock of POMONA CURRANTS,

But also a COMPLETE GENERAL ASSORTMENT of TREES, PLANTS, ORNAMENTALS, VINES, &c., in CAR-LOAD LOTS, especially APPLE, PEAR, CHERRY, PLUM; with good assortment of PEACH and other fruit trees and plants.

Also CAROLINA POPLAR, SOFT MAPLE, ELM, &c.

APPLE STOCKS.

IMPORTED FRENCH PEARS

MAHALEB, MYROBOLAN and QUINCE stocks.

SEE TRADE LIST.

ORDER SPADES EARLY.

A limited quantity of Natural PEACH PITS to offer.

Address, **ALBERTSON & HOBBS,**

BRIDGEPORT, MARION CO., INDIANA.

THE ROSSNEY PEAR.

This pear grown and for sale only by the **Pioneer Nursery Co., Salt Lake City, Utah**, is attracting much attention. This firm was established in 1850. It is well known throughout the country and its endorsement of a variety means much. It is introducing the Rossney pear, every tree bearing a copyrighted and trade-marked seal. The eastern agents are the Phoenix Nursery Co., Bloomington, Ill.

Following is the copyrighted description of the Rossney :

Rossney Pear—A new and excellent pair, raised from seed at Salt Lake City, Utah. In size, medium to large; very fine grain, flesh melting and very juicy; very sweet. Ripens two weeks after Bartlett. Is an excellent keeper and shipper. The tree is a much stronger grower than Keiffer. Luther Burbank says, under date of October 5th, 1895: "The samples of Rossney pear arrived in due season. The large size, handsome form and creamy yellow skin with crimson blush gives the fruit a tempting appearance; and the rich, tender and creamy flesh of just the right texture, with no hard spots and an unusually small core, with its superior flavor makes it about the best pear so far seen. If the tree is vigorous, healthy and productive, would prefer it to any other, even the standard Bartlett and Seckel."

GENEVA, N. Y., Sept. 4th, 1897.

PIONEER NURSERIES CO.

Gents:—Samples of Rossney Pear at hand, little overripe but not so much so that I could readily detect excellent quality, and with the fine red cheek covering one side, and fine size, I should say it might, with time of ripening you say—two weeks after the Bartlett, be regarded as an acquisition to the list of good Pears.

Respy,

S. D. WILLARD.

KINMUNDY, ILLINOIS, Sept. 6th, 1897.

PIONEER NURSERIES CO., Salt Lake City, Utah.

Dear Sirs:—Your letter of the 1st at hand on the 4th, also samples (3) of Rossney Pear. What beanties, opened them in a crowd of fruit men, but took them home to eat at my leisure. Really they were too handsome to eat, and as to eating qualities, well it is equal to the Bartlett at its best. I was completely captivated with those pears, and wondered if such trees as bore such pears could be saved from blight.

Shall mention the Rossney in October Visitor, which will be a trade edition of 5000 with colored plates.

If you think of putting this pear on the market have a photo made and let some artist make the color finish just as it is, so, it can be made into a fine plate. As to description, the copyrighted one is O. K. Hope to hear from you further on.

Yours truly,

E. G. MENDENHALL.

GENEVA, N. Y., Sept. 4th, 1897.

PIONEER NURSERIES CO., Salt Lake City.

Gentlemen:—Samples of Rossney Pears are received, and were in perfect condition. It is one of the handsomest pears we have seen with its yellow skin and brilliant coloring. The quality is good and if it will bear transportation well is a valuable acquisition.

Very truly,

W. & T. SMITH CO.

OGDEN, UTAH, Dec. 9th, 1895.

PIONEER NURSERIES CO., Salt Lake City.

Gentlemen:—Replying to your favor of the 5th, will say, I think you have a decided acquisition in the Rossney pear. We seldom find a single variety combining so many good points as does the Rossney. In size it equals Howell, in color it has the rich tints of yellow and carmine of the Clairgeau, in flavor it compares favorably with that old standard of excellency, Bartlett, in tree, as seen growing in your nurseries, Rossney surpasses in clean, thrifty, stocky growth, any variety with which I am acquainted.

Very respectfully,

D. M. MOORE.

BIGGS, BUTTE CO., CALIFORNIA, Oct. 28th, 1895.

PIONEER NURSERIES CO., Salt Lake City, Utah.

Dear Sirs:—An acknowledgement of your favor of the 27th of Sept., also samples of the "Rossney" Pear, has been delayed account of sickness of the writer. The fruit came in good condition, and we consider that you have a first-rate pear, and one which will, doubtless, prove valuable. It is of good flavor, and as our young hopeful said "tasted like more." Thanking you for your kind remembrance of us, we are

Yours very truly,

ALEXANDER & HAMMON.

BRIGHTON, N. Y., Oct. 19th, 1895.

PIONEER NURSERIES CO., Salt Lake City, Utah.

Gentlemen:—We send you by merchandise mail to-day the pear plates, and hope they will be entirely satisfactory. The pears sent ripened up beautifully and taxed our most brilliant colors to match the coloring. We have sampled them since painting, and all agree that they are as good as they look. Remarkably fine grained and excellent flavor.

Yours very truly,

C. F. NICHOLSON & SON,

Manufacturers of Nurserymen's Colored Plates.

FITZGERALD PEACH TREES.

A large stock of the above variety at a low price. In the following sizes : 2-3 ft.; 3-4 ft., and 4-5 ft.

Address, A. D. PRATT, Nurseryman, ROCHESTER, N. Y.

STOCKS AT FIRST COST.

Apple, Pear, Mazzard, Etc.

French Pear and Stratified Mazzard Seed. Best Grade of Raffia.

THOMAS MEEHAN & SONS, Germantown, Pa.

MUNGER RASPBERRY.

100,000 MUNGER, The new Late Raspberry for fancy market. Also Eureka, London, Miller, Columbian, Gault, Conrath, Lotta, Kansas, and all standard varieties.

1,000,000 Strawberry Plants, Carrie Margaret, Clyde, Wm. Belt, Champion of England, and all standard varieties.

200,000 Eldorado Blackberry, Olmer, Erie, Minnewaski, Maxwell, A. Britton, Stone's Hardy, Snyder, Taylor, Agawam, Wachusett, Early Harvest, Etc.

100,000 Currants, leading kinds; 150,000 Gooseberries, 50,000 Grape Vines

Get our prices on what you want. Finest stock grown We can save you 25 to 50 per cent. Try us. Catalogue free.

W. N. SCARFF, New Carlisle, Ohio

Mention this Paper.

EVERGREEN NURSERY COMPANY, EVERGREEN WIS.

Growers and Dealers in. **EVERGREENS AND DECIDUOUS TREES**

Have on hand for Spring Shipment a large stock of Seedling, and transplanted Arbor Vitæ, Norway Spruce, Pine; several varieties. Soft or Silver Maple, Sugar Maple, and a great many other kinds of Evergreens and Deciduous Trees for

SHADE, ORNAMENT or TIMBER CULTURE.

Let us give you prices on what you want before placing your order. Selling at wholesale to nurserymen a leading branch of our extensive trade.

PRICE LIST AND CATALOGUE SENT ON APPLICATION

Knox Nurseries.

ESTABLISHED 1851.

SPECIAL PRICES on leading commercial varieties of Apple, Peach, Cherry and Pear Trees. Large stock, Ben Davis, Jonathan, Grimes, Golden, M. B. Twig, Gardner and Clyde and other leading varieties of Strawberry Plants.

Also limited amount of Cow Peas and Soja Beans.

H. M. SIMPSON & SONS,
VINCENNES, IND.

When writing to Advertisers mention The National Nurseryman.

FOREMAN PACKING YARDS

WANTED. Must possess executive ability and capacity to correctly check and record stock as it arrives.

Address "PROPRIETOR PACKING YARDS."

Care NATIONAL NURSERYMAN, Rochester, N. Y.

ROCKY MOUNTAIN DWARF CHERRY.

Fine Plants Offered by

WHITING NURSERY CO.,
457 Blue Hill Avenue. BOSTON, MASS.

40,000 NORWAY MAPLES

Young, thrifty and well-rooted, 6 to 15 feet high, 1 to 3 inches diameter.

Low-branched for Parks, lawns and cemeteries.

High-branched for Avenue and Street planting.

Sugar, Silver, Weir's Cut-Leaved and Sycamore Maples, Oriental Planes, Poplars, Willows and a choice assortment of Japanese and other.

RARE EVERGREEN TREES.

CALIFORNIA PRIVETS, large plants for immediate effect, (Specimens and Hedge Plants).

Our prices and stock will please you.

Trees in car load lots a specialty.

CHAS. B. HORNOR & SON,
Horticulturists and Nurserymen,
Mount Holly, Bur. Co. N. J.

BERBERIS THUNBERGII.

Write me for low prices.

GOLDEN HOP TREE, 5 TO 7 FEET.

FLOWERING SHRUBS in great variety. Descriptive Catalogue and Price-List free.

SAMUEL C. MOON, Morrisville, Bucks County, Pa.

C. L. WHITNEY, Warren, Ohio.

Specialty, - Small Evergreens.

Especially fine Stock, Arbor Vitæ, J. Juniper, Pines, Pungens Spruce, &c. See my Prices.



DO YOU WANT

KIEFFER STD.,

First-Class, Medium or Light, (in car or part
car loads)? If so,

MAKE

US AN

OFFER

BY WIRE, OR WRITE US. CAN
SHIP PROMPTLY.

QUALITY UNSURPASSED

Also Cherry, Grape, Currant, Goose-
berry, Dwarf Pear, Tying Supplies and
Burlaps.

Spaulding Nursery & Orchard Co.,

Near Springfield.

SPAULDING, ILL.

“Spaulding Grown” Trees and Plants.

When writing to Advertisers mention The National Nurseryman.

AT COST.

20,000—1 yr. 3-5 nice Plum Stock.
5,000—7-12 Pears.
5,000— $\frac{1}{4}$ in. up. brch. roots, Apple.
3,000—6-8 Aug. Quince.

Also Nursery Grown.

3,000—Dwf. Duchesse Pear, 3-4 up.
500—Dwarf Anjou Pear, 5-8 up.
1,500—Assorted 2 yr. 3-4 Sweet Cherries.
1,000—Assorted 2 yr. Plums, 3-4 up.

WILEY & CO.,

Cuyuga Nurseries,

CAYUGA, N. Y.

High Grade Nursery Stock for Spring of '98.

Apples, Standard and Dwarf Pears, Cherries, Plums, Quinces,
Cut-Leaf Weeping Birch, Purple-Leaf Birch, Silver Maple,
Elms, Catalpa, Black Walnut and Butternut.

Write for Special Prices.

JAY WOOD, KNOWLESVILLE, N. Y.

Tree Roses at a Bargain

☞ We have 100 Tree Roses, fine
plants, for sale at a low price. ☞

THOMAS MEEHAN & SONS, Germantown,
Philadelphia, Pa.

Honey Locust Hedge, Most Ornamental for Parks and Lawns.

Strong and handsome for farm fencing. Hardy for cold climates.
Easy seller at good profits. Put your agents on to it. Plates of this beautiful
Hedge to sell from, furnished cheap. OSAGE ORANGE HEDGE and plates also.

WRITE FOR PRICES AND TRY THEM.

A. E. WINDSOR, - - - HAVANA, ILLS.

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APPLE
STD. PEAR
—CHERRY—
PEACH, Etc.

... The Very Finest ...

OUR PRICES WILL SUIT YOU, WRITE US FOR THEM.

THE MONROE NURSERIES,
I. E. Ilgenfritz's Sons,
MONROE,
MICH.

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The Only Trade Journal for Nurserymen

IS THE

National Nurseryman

Advertisers say it BRINGS RESULTS.

It is preserved for reference, and is found on the desks
of all Progressive Nurserymen.

When writing to Advertisers mention The National Nurseryman.

ESTABLISHED 1866 BY BLAIR BROS.

R. H. BLAIR & CO.,

Office N. W. Cor. 11th and Walnut Sts., - Kansas City, Mo.

Proprietors of the LEES SUMMIT NURSERIES.

Apple and Peach, new and leading varieties by the car lots.
Russian and American Apricots and native Plums by car lots.
Pears, Cherries and a general assortment of Small Fruits and Ornamentals.
We are not surpassed by any Nursery in the west, in number of acres or quality of stock. We have the only practical box-clamp in use. Price reduced.

CHOICE STRAWBERRIES. FRESH DUG PLANTS.

Nick Ohmer, Margaret, Seaford, Ruby, Carrie, etc. 400,000 Clyde, 130,000 Glen Mary, 400,000 Marshall. Write for estimate on large lots. 100 varieties. Catalogue sent free.

C. N. FLANSBURGH, LESLIE, MICHIGAN.

NURSEYRMEN Should read this, I have just what you want. Always in stock, a nice clean article of dry baled SPHAGNUM MOSS. No delay or freight charges from branch roads. Orders for less than large car load shipped the first day received.

L. G. THOMPSON,

Write me for easy terms and prices.

TOMAH, WIS.

PARAFFINE PAPER

For Nurserymen's use. Write for prices and samples stating sizes required.

R. M. MYERS & CO.,

Wholesale Paper Dealers, Rochester, N. Y.

GRAPE

STRAWBERRIES,
CURRANTS, GOOSEBERRIES,
AND OTHER
SMALL FRUIT PLANTS.

T. S. HUBBARD CO.,
FREDONIA, N. Y.

VINES

ALL OLD AND NEW VARIETIES.
Immense Stock,
Warranted True.
QUALITY UNSURPASSED.
Prices lower than ever before. Send
list of wants for prices.

The Sparta Nurseries have to offer their Usual stock of dry baled Moss, both burlap and wired bales, and of the finest quality on the market. Also a full line of small fruit plants, high bush Cranberry, Juneberry and Huckleberry included. Ask for prices and terms.

Z. K. JEWETT & CO., Sparta, Wis.

J. E. CURTISS

MANUFACTURER OF

GREEN ELM CLEATS AND CORNERS. OUR
SPECIALLY TAR-POINTED ROSE TREE
STAKES, BUSHEL CRATES AND EXTRA
STRONG TWO BUSHEL CRATES FOR MOSS.

Barre Center, N

J. E. CURTISS.

Ornamental TREES

LARGE
SMALL

FLOWERING SHRUBS in great variety. Descriptive Catalogue and Price-List free.

SAMUEL C. MOON, Morrisville, Bucks County, Pa.

THE KLONDIKE . . .

still continues to be a subject of interest. Of no less importance to Nurserymen is their supply of labels for the coming season. Order early and avoid the rush. Samples and prices on application to

BENJAMIN CHASE,

15 Mill Street, Derry, N. H.



NUT AND FRUIT TREES

Of all Desirable Varieties.

IMMENSE STOCK. 300 ACRES. 60 YEARS.

BOOK ON NUT CULTURE, 157 PAGES, 60 ILLUSTRATIONS, telling how to propagate, market and cook them. PRICE \$1.00, or free with an order of Nut Trees for \$5. Catalogue Free.

CHINQUAPIN. PARRY'S POMONA NURSERIES, PARRY, N. J.

SHENANDOAH NURSERY, HEADQUARTERS FOR APPLE SEEDLINGS

Largest stock in the West.

PEAR, PLUM AND CHERRY STOCKS.

Osage Orange, Russian Mulberry and Forest SEEDLINGS.

Nursery grown.

Apple, Pear, Plum, Peach and Cherry Trees by the car load.

Acres of Shade and Ornamental Trees of all sizes.

Small Fruits, Ornamental Shrubs and Evergreens

in quantity to suit the purchaser.

Scions, large surplus.

Grafts of any style made to order.

Our stock has made a fine growth, and is free from all injurious insects, and includes all the leading varieties and will be graded up to the highest standard grades. WRITE FOR PRICES.

D. S. LAKE, PROPRIETOR,

SHENANDOAH, IOWA.

SPRAY

BORDEAUX

YOUR FRUIT

BORDEAUX NOZZLE

WITH THE "INCOMPARABLE"

used on "WORLD'S BEST" Spraying Outfits made only by THE DEMING CO. SALEM, OHIO. makers of ALL KINDS OF PUMPS. THIS CUT shows our Kerosene KNAPSACK SPRAYER. Makes its own emulsion in the act of pumping. Sold by dealers generally. Write the manufacturers or their General Western Agents, HENION & HUBBELL, CHICAGO. Illustrated Book on "Spraying" FREE.

FLEMER & FELMLY, SPRINGFIELD, N. J.

OUR SPECIALTIES PEACH AND PLUM.

JAPAN WALNUT, SHADE TREES, CAL. PRIVET and SHRUBBERY.

STOCK GOOD AND PRICES RIGHT.



Evergreens

For Nurserymen
and Dealers.



Quality
Superior.

Prices
the Lowest.

Fine colored trees of the Colorado Spruces and Concolors; both seedlings and transplanted. 300,000 transplanted Hemlocks. Over 1,000,000 seedlings. 100 acres, leading, standard, hardy sorts. Any quantity of Arborvitae and Spruces.

D. HILL, Evergreen Specialist,

DUNDEE, ILL.

Correspondence Solicited.

When Writing to Advertisers mention The National Nurseryman.

High-Grade Trees.



Our new semi-annual Trade List gives sizes and prices on all kinds of TREES and SHRUBS that we have to offer.

Our high-grade PEACH TREES are noted for absolute health and vigor. Car-load lots can be furnished at very low rates.

We carry a full line of ORNAMENTAL TREES, and no better grown stock can be procured. These embrace many excellent novelties.

In SHRUBBERY we undoubtedly excel, as everything is grown with the greatest care, and graded in conformity with our Trade List sizes.

HOOPEs, BRO. & THOMAS,



Maple Avenue Nurseries,
West Chester, Pa.

BREWER & STANNARD.

— THE —

Ottawa Star Nurseries,
OTTAWA, KANSAS.

Offer a full and complete stock of FRUIT and ORNAMENTAL TREES, and call your attention especially to

APPLE—Well rooted ; good assortment in all grades.

PEAR—Standard and Dwarf, 2-years ; good assortment.

PLUM ON PLUM—One and 2-years ; American, Japan and European sorts.

PEACH—A fine lot and good assortment.

APRICOTS—Russian and American sorts.

GOOSEBERRIES—2-year ; strong plants, mostly Houghton and Downing.

CURRENTS—One and 2-years ; good assortment, very fine.

FOREST SEEDLINGS—Russian Mulberry, Maple, Box Elder, Black Locust, Ash, Elm, Catalpa and Osage Hedge.

APPLE SEEDLINGS—All grades, fine healthy plants.

ORNAMENTAL TREES—Strong on Mountain Ash and Maple, 5 to 6 and 6 to 8 feet.

We have also a good assortment of Ornamental Shrubs, Roses and Vines.

For a more complete list we refer you to our semi-annual trade list and solicit correspondence.

When writing to Advertisers mention The National Nurseryman.

SNOWHILL NURSERIES.

Must be Sold to Clear the Land.

300,000 Peach Trees—One year from bud, in four grades.

20,000 Japan Plums—One year old.

20,000 Grape Vines—Two and three years old.

100,000 Asparagus Roots—Two and three years old.

Three Million Strawberry Plants.

Favor us with your list of wants. Our prices will surprise you. Descriptive catalogue if requested.

W. M. PETERS SONS,
WESLEY, MD.

PETERS & SKINNER,

North Topeka, Kansas.

CAPITAL NURSERIES.

APPLE SEEDLING

Japan Pear Seedling, Russian Mulberry, Box Elder,
Silver Maple, Elm, and Osage Seedling.

APPLE, PEACH, CHERRY, TREES.
PLUM AND APRICOT.

Keiffer, Garber and Koonce Pear.

BECHTEL'S DOUBLE FLOWERING CRAB.

Remember we are extensive growers of **APPLE TREES** and **APPLE SEEDLING**, and can supply in large lots.

PETERS & SKINNER,  **NORTH TOPEKA, KANSAS.**

When writing to Advertisers mention The National Nurseryman.

CLEAN STOCK—INSPECTORS' CERTIFICATE.

PEACH TREES, all sizes, grown on new land.
 CALIFORNIA PRIVET, 2 years, strong plants.
 NORWAY SPRUCE, fine bushy plants, 4, 5 and 6 feet.
 AMERICAN ARBOR VITÆ, 2 to 2½ feet. Fine bushy.
 OSAGE ORANGE, low rates, one and two years.
 Asparagus roots, Barrs & Moores Cross Bred fine roots.
 RASPBERRIES—Marlboro, Cuthbert, Gregg, Columbian, &c.
General Nursery Stock fresh dug as ordered. Surplus stock at low prices. **JOSIAH A. ROBERTS.**
 Malvern, Chester Co., Pa.

NO MORE FRUIT SEEDLINGS

To offer this Spring.

I still have a good line of Ornamental Stocks for transplanting.

HIRAM T. JONES,
 Union County Nurseries, ELIZABETH, N. J.

BUY DIRECT FROM THE PRODUCERS.

H. P. Roses, Tree Roses, Hardy Azalea,

Rhododendrons, Jackmanii Henryii, Duchess of Edenburg,
 Ramona, Clematis.

L. C. BOBBINK,

Branch of the Horticultural Co. BOSKOOP, HOLLAND.

Special at Baird's Nursery.

PEACH TREES BY THE 1,000 OR CARLOAD.

Japan Plums and Erie Blackberry from Root Cuttings

If you want to buy, our prices will interest you.

D. BAIRD & SON, Baird, N. J.

APPLE TREES

Two Years, 5-7 Feet. Northern Sorts.

ABUNDANCE AND . . .
. . . WILLARD PLUM

Two Years, 5-7 feet. Prices Low.

F.W. WATSON & CO.

TOPEKA, Kans.

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Extra Fine Plants.

INTRODUCER OF THE

PEARL GOOSEBERRY.

Gooseberries,

Currants,

Raspberries,

Blackberries, &c.

(Transplants.)

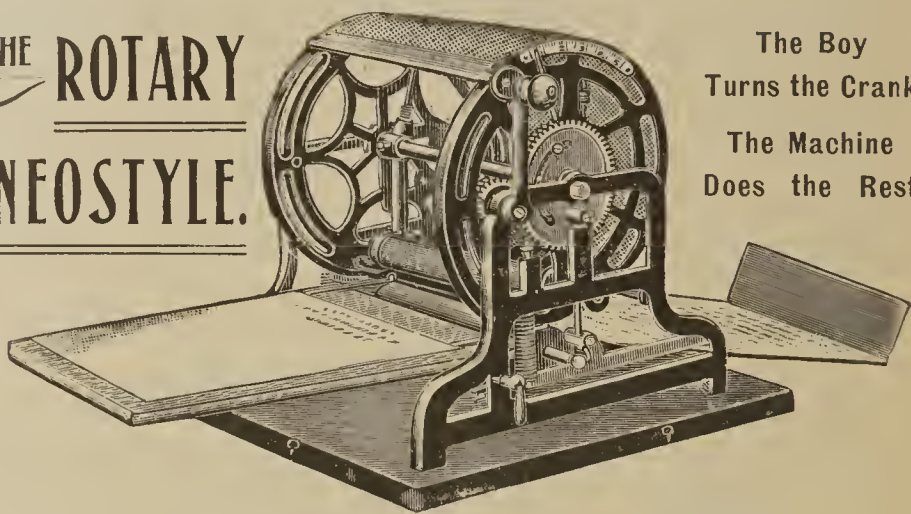
(Root Cuttings.)

I offer all the Standard Varieties, including Columbian, Loudon, Kansas Raspberries, Rathbun Blackberries and Pomona Currants, Etc.

REMEMBER I am the largest grower in the world, Our soil is specially adapted for growing extra strong plants. Before buying get my Wholesale List.

ALLEN L. WOOD, Rochester, N. Y.

THE ROTARY
 NEOSTYLE.



The Boy
 Turns the Crank

The Machine
 Does the Rest

This, the latest modification of the well known Neostyle Duplicator, enables any boy to print 2,000 perfect copies from original writing or typewriting. Used and endorsed by the largest nurserymen in the country. Testimonials and specimens of work on request.

NEOSTYLE CO., 96-102 Church St., NEW YORK.

Fairmount Nurseries

TROY, OHIO.

For Fall and Spring trade we have an exceptionally fine stock of

Apple, Std. Pear,
 Plum, Dwf. Pear,
 Cherry, Peach,
 Quince, Grape,
 Apricot, Currants,
 Gooseberry, Evergreens
 and Ornamentals.

HEADQUARTERS FOR

Apple Seedlings

which will be extra fine, and can be shipped either from Troy, Ohio, or Topeka, Kansas.

Favor us with a list of your wants, and we believe we can quote prices that will suit you.

GEO. PETERS & CO.
 TROY, OHIO.

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P. J. BERCKMANS.
L. A. BERCKMANS.

ESTABLISHED IN 1856.

R. C. BERCKMANS.
P. J. A. BERCKMANS, JR.

Fruitland Nurseries,

P. J. BERCKMANS, Prop.,

AUGUSTA, - GA.

Over One Acre under glass.

350 Acres in Nursery Stock.

Our Trees and Plants

Have been fully tested in every section of the United States during the past 40 years. The stock now growing is up to the usual past high grade, all of thrifty growth, no old rubbish, and **free from scale or disease.**

Fruit Department.

Apples, Cherries, Figs, Pears, (an extra fine lot of 100,000 standard 2 and 3 years, largely of Kieffer), Paper Shell Pecans, Plums (Japan) on Marianna, English Walnuts, Grape Vines, etc. **Peach Trees** in car load lots.

EVERBEARING PEACH

A valuable novelty now offered for the first time.

Ornamental Department.

150,000 Amoor Privet—Unsurpassed as an evergreen hedge plant.
50,000 Citrus Trifoliata—Japan Hardy Lemon; best defensive hedge plant, stands 15 degrees below zero.

150,000 Roses—Field grown, including 30,000 Marechal Niel budded upon Manetti, 3 to 5 feet.

Two acres in Canna.

Azaleas (home grown).

Broad leaved Evergreens, etc., etc., Biota Aurea Nana, Cedrus Deodora, Retinosporas and other rare coniferæ.

Greenhouse Department.

100,000 Palms—(An especially fine lot of Latanias, Phoenix, Pandanus and Coeos Weddelliana.)

Ficus, Decorative Plants, Crotons, Bedding Plants, 10,000 Camphor Trees, Sub-Tropical fruits, etc.

Send for trade list and descriptive Catalogue.

PEACH TREES, CURRANTS.

Do you Wish to Purchase Nursery Stock?

Try the **KINSEY NURSERIES,**

A long established firm, and see if the varieties you get do not prove true to name, and also whether you will not be entirely satisfied with your purchase in other respects.

WE GUARANTEE SATISFACTION TO OUR CUSTOMERS.

We grow a general line of nursery stock, but are especially long on

Peach, Quince, Currants,

Houghton Gooseberries, Rhubarb, Asparagus,

Silver-Leaved Maple, Siberian Arborvitæ,

Pyramidalis Arborvitæ and Balsam Fir.

We solicit correspondence.

SAMUEL KINSEY & CO.,
KINSEY, O.

Bargains in....

* HIGH GRADE STOCK

SPECIALTIES IN FRUIT.

APPLES. Sutton Beauty and Walker Beauty.

ST'D PEARS. Beurre Bosc and Easter Beurre.

CHERRIES. Gov. Wood and Montmorency.

PLUMS. Empire, Wickson and Tennant Prune.

RASPBERRIES. Columbian and Turner.

GOOSEBERRIES, CURRANTS.

SPECIALTIES IN ORNAMENTAL

Cut Leaf Birch, Horse Chestnut, Norway Maples, Sugar Maples,
Lindens, Magnolias, Rhododendrons, Ampelopsis Veitchii,
Tree Roses, Bignonia, Herb Pæonias,
Clematis.

DEALERS' COMPLETE LISTS RECEIVE SPECIAL ATTENTION.

TRADE LIST ON APPLICATION.

W. & T. SMITH CO.,

GENEVA NURSERY,

GENEVA, N. Y.

600 Acres.

Established 1852.

13 Greenhouses.

ROSES ALL ON OWN ROOTS OUR OWN GROWING

Large Stock of Leading Varieties,

Hybrid Perpetuals, Moss and Climbing, Field Grown,
Dormant, 2 Years. Everblooming and Hybrid
Perpetuals, from 4 inch Pots.

Prices and List of Varieties Sent on Application.

Keiffer Pears

STANDARD, FOR SPRING '98.

Very Large and Fine Stock of 6 to 8, 5 to 7, and 4 to 6
feet, at Low Prices in Quantity.

A complete line of Nursery and Greenhouse Stocks.
Send for Trade List.

PHOENIX NURSERY COMPANY,

P. O. Box 625.

BLOOMINGTON, ILL.

THE MILLION

AND A HALF

That were budded in 1895 are now sold except about

ONE HUNDRED THOUSAND

and they must go by the 20th, and our block for this fall is the finest in the United States, none excepted. More than one million of them and two hundred and seventy thousand are Elbertas, the others the new and standard sorts.

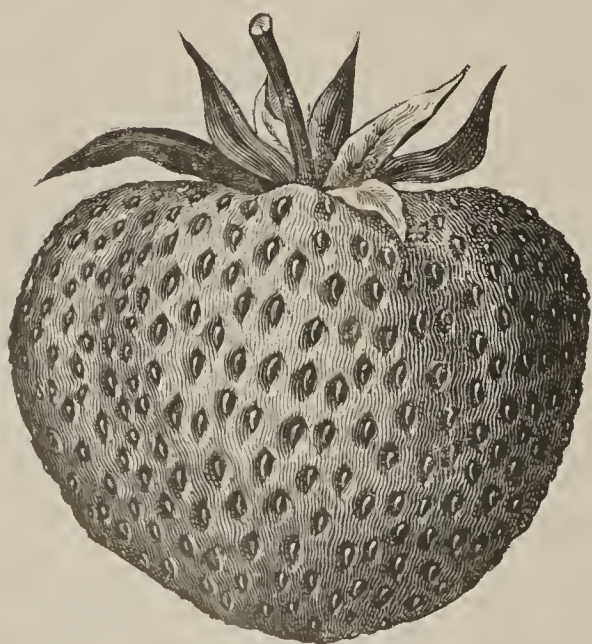
Orders will now be booked for June.

BUDS FOR FALL

Varieties of Peach now unsold are principally Elberta, Fox, Seedling, Smock, Crawford Late, Moore's Favorite, Stump, Gerry's Wonderful, Bray's R. Ripe, Sneed, Greensboro, Mixon, Triumph, Globe, and a General List. And the price is right.

SEND YOUR LIST OF WANTS AT ONCE.

STRAWBERRY PLANTS.



Glen Mary, Wm. Belt, Brandywine,

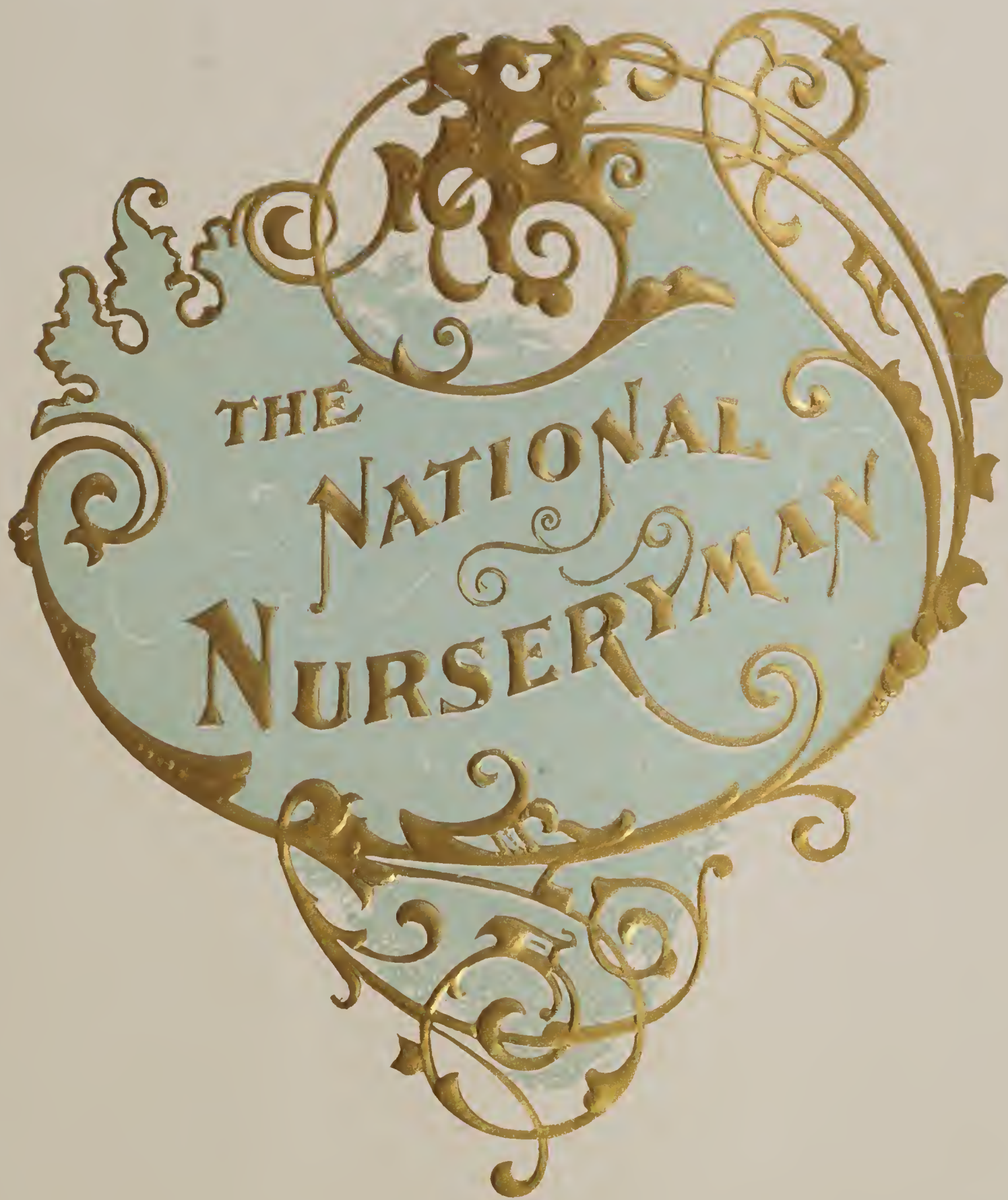
Ocean City, Brunette, Sunnyside,

Bismark, Margaret and Sharpless.

and the regular list. Send your list of wants.

Plums on Plum and on Peach.—Abundance, Burbank, Charlotte, Red June, and several others. Our stock will be in good shape to send out until May 1st, as it will all be handled before April 1st. Send list at once.

HARRISON'S NURSERIES, BERLIN, MD.



May, 1898.

Painesville



Nurseries.

Located on the shore of Lake Erie, thirty miles east of Cleveland, grow as healthy and hardy nursery stock as can be found between the oceans, consisting of one of the most complete assortments of

*Fruit and Ornamental Trees, Small Fruits, Nut
Bearing Trees, Grape Vines, Shrubs, Roses
Hardy Herbaceous Plants, Climbing Vines
Bulbs and Greenhouse Plants. . .*



Have in Special Surplus.

Mulberry—New American; 4 to 5 and 5 to 6 feet.
Chestnuts—Ridgely, Numbo and Parry's Giant; 4 to 6 and 6 to 7 feet.
Walnut—Japan, Sieboldi; 4 to 5, 5 to 6 and 6 to 8 feet.
“ —English; 2 to 3 and 3 to 4 feet.
“ —Black; 4 to 6, 6 to 8 and 8 to 10 feet.
Persimmon—American; 4 to 5, 5 to 6 and 6 to 8 feet.
Currants—Strong 2-yr.; full assortment.
Gooseberries—Strong 2-yr. and 3-yr.
Blackberries—Especially Snyder, Agawam and Early Harvest; grand root cutting plants.
Dewberry—Lucretia; also **Raspberries, Strawberries** and **Asparagus**.
Fruit Trees—Extra surplus notably some sorts of **Pear, Plum, Cherry, Peach**.

ORNAMENTAL DEPARTMENT.

Especially heavy in

Birch—European White, 10 to 12, 12 to 15 and 15 to 20 ft.
Beech—Purple-leaf; 2 to 3, 3 to 4 and 4 to 5 feet.
Maple—Silver; 8 to 10, 10 to 12, 12 to 15 and 15 to 20 feet.
“ —Norway; 8 to 10, 10 to 12 and 12 to 15 feet.

Magnolia—Acuminata; 4 to 6, 6 to 8 and 8 to 10 feet.
Mountain Ash—5 to 6, 6 to 8 and 8 to 10 feet.
Poplars—Carolina and Lombardy; 8 to 10, 10 to 12 and 12 to 15 feet.
Willows—Gold-bark and Laurel-leaved; 5 to 6, 6 to 8 and 8 to 10 feet.

WEeping TREES.

Birch—Young's; 4 to 6 and 6 to 8 feet.
Elm—Camperdown and Fulva Pendula, 1 and 2yr. heads.
Ash—Mountain; 1 and 2-yr. heads.
Willows—Kilmarnock and New American; 1 and 2yr. heads; Wisconsin, 6 to 8 and 8 to 10 feet.

EVERGREENS.

Arbor Vitæ—American; 1½ to 2, 2 to 3 and 4 to 5 feet.
“ “ —Hovey's Golden; 1½ to 2 and 2 to 3 feet.
“ “ —Pyramidalis; 2 to 3, 3 to 4, 4 to 5 and 5 to 6 ft.
“ “ —Siberian; 1½ to 2 and 3 to 3½ feet.
Spruce—Norway; 1½ to 2, 2 to 3 and 3 to 4 feet.
“ —White; 2 to 3 feet.



*Please let us know your wants and
we will quote you bottom prices. .*



**The Storrs & Harrison Co.,
PAINESVILLE, O.**

"The most complete Nurseries on the American Continent."

THE
**MOUNT
• • HOPE • •
NURSERIES,**
ROCHESTER, N. Y.

ELLWANGER & BARRY Proprietors.

Established over fifty years ago, and still under the same management.

The largest and most complete collections of General Nursery Stock ever offered; the most approved varieties of FRUIT TREES, new and old, Grape Vines, Currants, Raspberries, Gooseberries, etc.

Superb collections of ORNAMENTAL TREES and SHRUBS, both deciduous and evergreen. HARDY ROSES, HARDY HERBACEOUS PLANTS, HERBACEOUS PÆONIES. HARDY PHLOXES.

Fine stock of Gooseberries and Currants.

Wholesale catalogue mailed free on request.

70,000 Berberry, 18 to 24 inch.
100,000 do 12 to 18 inch.
200,000 do 8 to 12 inch.
150,000 do 6 to 8 inch.
1,000,000 Gardner Strawberry.
100,000 Silver Maple, 2 to 3 ft.
75,000 do 1 to 2 ft.
200,000 Picea Pungens, all sizes.
100,000 Ponderosa Pine, 4 to 6 inch.
50,000 Mt. Ash, stocky, for lining out, 2 ft.

Write for prices to,

GARDNER & SON, PROP'S.,

Osage Nurseries, Osage, Ia.

APPLE SEEDLINGS—carefully graded.

PEACH TREES—No Yellows or Rosette in Nebraska.

LARGE SHADE TREES—2 to 3 inch and smaller sizes.

FOREST SEEDLINGS—Black Locust, Box Elder.

ASH AND SILVER MAPLE.

OSAGE HEDGE PLANTS.

Everything the best and prices right. Apple Grafts made to order. Our stock is all grown on new land and free from insects or disease.

YOUNGERS & CO.,
GENEVA, NEB.

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NOVELTIES FOR 1898-1899.

THE ONLY HARDY YELLOW CLIMBING ROSE,
AGLAIA OR YELLOW RAMBLER

[Our stock of this for next season will be about the finest plants ever sent out from our nurseries.]

THE LARGEST BLACK RASPBERRY KNOWN,
CUMBERLAND (TRADE MARK.)

[Strong transplanted plants for next season. Offered only under contract but one very advantageous to our customers.]

LUTHER BURBANK'S NEW WHITE BLACKBERRY,
ICEBERG ❧ ❧ ❧

[We hold the entire stock of this valuable novelty, it having been placed in our hands by Mr. Burbank for introduction. It has proved hardy here and is a most valuable acquisition.]

OF GENERAL STOCK.—We shall have our usual fine assortment of Roses, Clematis, Ornamental Shrubs and Trees. Small Fruit Plants and Fruit Trees.

JACKSON & PERKINS CO., Newark, New York

**FREE PLATES
FOR AGENTS USE**

will be furnished to all reliable nurserymen who will handle these novelties, depending upon us for their supply of plants. Plates of the Yellow Rambler and Cumberland can be supplied now and one of the Iceberg Blackberry is being prepared.

**Handsome Descriptive
Circulars**

will also be supplied at less than cost to us.

W. T. HOOD & CO.,
Old Dominion Nurseries.

We Offer for Spring:

Japan Pear Seedlings, 1 year.
20,000 $\frac{1}{4}$ up. Extra fine.
10,000 $\frac{3}{16}$ to $\frac{1}{4}$.
10,000 $\frac{1}{8}$ to $\frac{3}{16}$.

100,000 Peach Trees.

100,000 Peach Seedlings from Natural Pits.
Natural Peach Pits.

A general line of Nursery Stock.

Wanted—Apple Seedlings in Exchange.

W. T. HOOD & CO., - - RICHMOND, Va.

Smiths & Powell Co.,
Syracuse, N. Y.,

offer a large and choice stock of

**BUDDED APPLES,
STANDARD AND DWARF PEARS,
PLUMS, CHERRIES, PEACHES,
ROSES, ORNAMENTAL TREES,
SHRUBS AND VINES.**



Our stock is of superior quality and most carefully graded. Send us your want list or come and see our stock. We issue no trade price list, but will make low prices by letter.

Do not forget the **OLD RELIABLE SYRACUSE NURSERIES.**

ESTABLISHED 1780.

ANDRE LEROY NURSERIES,

Brault & Son, Directors, Angers, France,

Beg to announce to the trade that their extensive spring sowing will enable them to supply for the Fall 1898 and Spring 1899, large quantities of first-class, well-graded **FRUIT SEEDLINGS** at lowest market prices, also a fine and complete variety of **ORNAMENTALS, ROSES, SHRUBS, Etc.** Apply for special quotations to

ANDRE L. CAUSSE, Agent,

105-107 Hudson St.,

NEW YORK.

Rate, including all shipping charges from Angers to F. O. B. New York, given on application.

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**APPLE
STD. PEAR
CHERRY
PEACH, Etc.**

The Very Finest . . .

OUR PRICES WILL SUIT YOU, WRITE US FOR THEM.

**THE MONROE NURSERIES,
I. E. Ilgenfritz's Sons,
MONROE,
MICH.**

©

THE SEDGWICK NURSERY CO.

SEDGWICK, KANSAS.

(Successor to CHAUNCEY A. SEAMAN,)

Offer SHADE TREES in car lots at bottom prices.

SPECIALTIES for '97-'98.

POMONA CURRANT, 1 and 2 yrs., No. 1. 50,000 POMONA CURRANT cuttings.
LOUDON RASPBERRIES, suckers and transplants.
MUNGER, the new, large BLACK CAP RASPBERRY.
OILMER and ELDORADO BLACKBERRIES.

Ornamental Trees and Shrubs. Paonias, Hardy Herbaceous Plants, &c.
INSPECTION OF STOCK DESIRED.

E. Y. TEAS, - IRVINGTON, IND, (near Indianapolis).

High Grade Nursery Stock for Spring of '98.

Apples, Standard and Dwarf Pears, Cherries, Plums, Quinces,
Cut-Leaf Weeping Birch, Purple-Leaf Birch, Silver Maple,
Elms, Catalpa, Black Walnut and Butternut.

Write for Special Prices.

JAY WOOD, KNOWLESVILLE, N. Y.

FLEMER & FELMLY, SPRINGFIELD, N. J.

OUR SPECIALTIES **PEACH AND PLUM.**

JAPAN WALNUT, SHADE TREES, CAL. PRIVET and SHRUBBERY.

STOCK GOOD AND PRICES RIGHT.

<p>Apple, Peach, Standard Pears, Plum, Apricots, Grapes, Shade Trees, Evergreens, Shrubs,</p>	<p>HEADQUARTERS FOR NURSERY STOCK.</p> <p>Baltimore and Richmond Nurseries, BALTIMORE, MD.</p> <p>FRANKLIN DAVIS NURSERY CO. 50 YEARS. Tennessee Natural Peach Pits and selected Smock. 1000 ACRES. LOW PRICES ON PEACH TREES FOR EARLY ORDERS.</p>	<p>Strawberries, Nut Trees, Japan Pear Seedlings, Gooseberries, Roses, Raffia, General Supplies, &c., &c., &c.</p>
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APPLE TREES

Two Years, 5-7 Feet. Northern Sorts.

**ABUNDANCE AND . . .
. . . WILLARD PLUM**

Two Years, 5-7 feet. Prices Low.

F.W. WATSON & CO.

TOPEKA, Kans.

Fairmount Nurseries

TROY, OHIO.

For Fall and Spring trade we have an exceptionally
fine stock of

**Apple, Std. Pear,
Plum, Dwf. Pear,
Cherry, Peach,
Quince, Grape,
Apricot, Currants,
Gooseberry, Evergreens
and Ornamentals.**

HEADQUARTERS FOR

Apple Seedlings

which will be extra fine, and can be shipped either from Troy, Ohio,
or Topeka, Kansas.

Favor us with a list of your wants, and we believe we can quote
prices that will suit you.

GEO. PETERS & CO.
TROY, OHIO.

When writing to Advertisers mention The National Nurseryman.

When writing to Advertisers mention The National Nurseryman.

200,000 Peach Trees, | 100,000 Blackberry,
2,000,000 Strawberry Plants, | 500,000 Raspberries.

Eldorado, Maxwell and Lucreiat Blackberries.

MILLER, LOUDON and
COLUMBIAN . .

TRIUMPH,
GREENSBORO and EMMA,

Raspberries.

and a full
assortment of

Wickson, Red June and Giant

Peaches

PLUMS.

. . . . AND OTHER FRUIT.

It will be to advantage of those in the trade to correspond
with us.

Our Catalogue will save you money.

MYER & SON,
BRIDGEVILLE, DELAWARE.

Peach and Plum Trees . . .

FOR SPRING DELIVERY 1898.

All desirable leading old and new varieties of Peaches here in fruiting orchards. Have the new **Triumph**, **Greensboro** and **Sneed** fruiting. Buds can be supplied in season at low rates. Large stock of **Plum** trees, all on Plum roots, one and two year. Buds in season from either nurseries or orchard trees. Have all the leading Japanese varieties, **Abundance**, **Burbank**, **Chabot**, **Satsuma**, **Willard** and others. Also in good supply the new **Red June** and **Wickson**. Have the usual supply of **Asparagus Roots** to offer. Two and three years old. strong.

ALEXANDER PULLEN,

Milford Nurseries.

MILFORD, DEL.

BREWER & STANNARD.

~ THE ~

Ottawa Star Nurseries,

OTTAWA, KANSAS.

Offer a full and complete stock of **FRUIT** and **ORNAMENTAL TREES**, and call your attention especially to

APPLE—Well rooted ; good assortment in all grades.

PEAR—Standard and Dwarf, 2-years ; good assortment.

PLUM ON PLUM—One and 2-years ; American, Japan and European sorts.

PEACH—A fine lot and good assortment.

APRICOTS—Russian and American sorts.

GOOSEBERRIES—2-year ; strong plants, mostly Houghton and Downing.

CURRENTS—One and 2-years ; good assortment, very fine.

FOREST SEEDLINGS—Russian Mulberry, Maple, Box Elder, Black Locust, Ash, Elm, Catalpa and Osage Hedge.

APPLE SEEDLINGS—All grades, fine healthy plants.

ORNAMENTAL TREES—Strong on Mountain Ash and Maple, 5 to 6 and 6 to 8 feet.

We have also a good assortment of **Ornamental Shrubs**, **Roses** and **Vines**.

For a more complete list we refer you to our semi-annual trade list and solicit correspondence.

When writing to Advertisers mention The National Nurseryman.

SNOWHILL NURSERIES.

Must be Sold to Clear the Land.

300,000 Peach Trees—One year from bud, in four grades.

20,000 Japan Plums—One year old.

20,000 Grape Vines—Two and three years old.

100,000 Asparagus Roots—Two and three years old.

Three Million Strawberry Plants.

Favor us with your list of wants. Our prices will surprise you. Descriptive catalogue if requested.

W. M. PETERS SONS,

WESLEY, MD.

PETERS & SKINNER,

North Topeka, Kansas.

CAPITAL NURSERIES.

APPLE SEEDLING

Japan Pear Seedling, Russian Mulberry, Box Elder,
Silver Maple, Elm, and Osage Seedling.

APPLE, PEACH, CHERRY, TREES.
PLUM AND APRICOT

Keiffer, Garber and Koonce Pear.

BECHTEL'S DOUBLE FLOWERING CRAB.

Remember we are extensive growers of **APPLE TREES** and **APPLE SEEDLING**, and can supply in large lots.

PETERS & SKINNER,  **NORTH TOPEKA, KANSAS.**

When writing to Advertisers mention The National Nurseryman.

P. J. BERCKMANS.
L. A. BERCKMANS.

ESTABLISHED IN 1856.

R. C. BERCKMANS.
P. J. A. BERCKMANS, JR.

Fruitland Nurseries,

P. J. BERCKMANS, Prop.,
AUGUSTA, - GA.

Over One Acre under glass.

350 Acres in Nursery Stock.

Our Trees and Plants

Have been fully tested in every section of the United States during the past 40 years. The stock now growing is up to the usual past high grade, all of thrifty growth, no old rubbish, and free from scale or disease.

Fruit Department.

Apples, Cherries, Figs, Pears, (an extra fine lot of 100,000 standard 2 and 3 years, largely of Kieffer), Paper Shell Pecans, Plums (Japan) on Marianna, English Walnuts, Grape Vines, etc. **Peach Trees** in car load lots.

EVERBEARING PEACH

A valuable novelty now offered for the first time.

Ornamental Department.

150,000 Amoor Privet—Unsurpassed as an evergreen hedge plant.
50,000 Citrus Trifoliata—Japan Hardy Lemon; best defensive hedge plant, stands 15 degrees below zero.

150,000 Roses—Field grown, including 30,000 Marechal Niel budded upon Manetti, 3 to 5 feet.

Two acres in Canna.

Azaleas (home grown).

Broad leaved Evergreens, etc., etc., Biota Aurea Nana, Cedrus Deodora, Retinosporas and other rare coniferæ.

Greenhouse Department.

100,000 Palms—(An especially fine lot of Latanias, Phoenix, Pandanus and Coeos Weddelliana.)

Ficus, Decorative Plants, Crotons, Bedding Plants, 10,000 Camphor Trees, Sub-Tropical fruits, etc.

Send for trade list and descriptive Catalogue.

THE POMONA CURRANT.



The BEST SPECIALTY for the AGENTS for 1897 and 1898.

WHY? Because it is the best MONEY MAKER for the people to plant.

It is BEST in QUALITY.

Its returns come in the *quickest* and *surest*.

These being the qualities the planter is after, he buys it.

Introduced and for sale by us. Send for circulars, plates, terms, &c.

Not only have we a good stock of POMONA CURRANTS,

But also a COMPLETE GENERAL ASSORTMENT of TREES, PLANTS, ORNAMENTALS, VINES, &c., in CAR-LOAD LOTS, especially APPLE, PEAR, CHERRY, PLUM; with good assortment of PEACH and other fruit trees and plants.

Also CAROLINA POPLAR, SOFT MAPLE, ELM, &c.

APPLE STOCKS.

IMPORTED FRENCH PEARS

MAHALEB, MYROBOLAN and QUINCE stocks.

SEE TRADE LIST.

ORDER SPADES EARLY.

A limited quantity of Natural PEACH PITS to offer.

Address, **ALBERTSON & HOBBS,**

BRIDGEPORT, MARION CO., INDIANA.

Bargains in....

* HIGH GRADE STOCK

SPECIALTIES IN FRUIT.

APPLES. Sutton Beauty and Walker Beauty.

ST'D PEARS. Beurre Bosc and Easter Beurre.

CHERRIES. Gov. Wood and Montmorency.

PLUMS. Empire, Wickson and Tennant Prune.

RASPBERRIES. Columbian and Turner.

GOOSEBERRIES, CURRANTS.

SPECIALTIES IN ORNAMENTAL

Cut Leaf Birch, Horse Chestnut, Norway Maples, Sugar Maples,

Lindens, Magnolias, Rhododendrons, Ampelopsis Veitchii,

Tree Roses, Bignonia, Herb Paeonias,

Clematis.

DEALERS' COMPLETE LISTS RECEIVE SPECIAL ATTENTION.

TRADE LIST ON APPLICATION.

W. & T. SMITH CO.,

GENEVA NURSERY,

GENEVA, N. Y.

600 Acres.

Established 1852.

13 Greenhouses.

ROSES ALL ON OWN ROOTS OUR OWN GROWING

Large Stock of Leading Varieties,

Hybrid Perpetuals, Moss and Climbing, Field Grown,

Dormant, 2 Years. Everblooming and Hybrid

Perpetuals, from 4 inch Pots.

Prices and List of Varieties Sent on Application.

Keiffer Pears

STANDARD, FOR SPRING '98.

Very Large and Fine Stock of 6 to 8, 5 to 7, and 4 to 6 feet, at Low Prices in Quantity.

A complete line of Nursery and Greenhouse Stocks.
Send for Trade List.

PHOENIX NURSERY COMPANY,

P. O. Box 625.

BLOOMINGTON, ILL.

Peach Trees

Ready to Contract for
June Budding

Estimates made for August
budding as well.



Peach, Plums and
other Small Stock.

Our budded list will be given in the next issue.

Over
One Million Peach

Now budded for our fall trade.

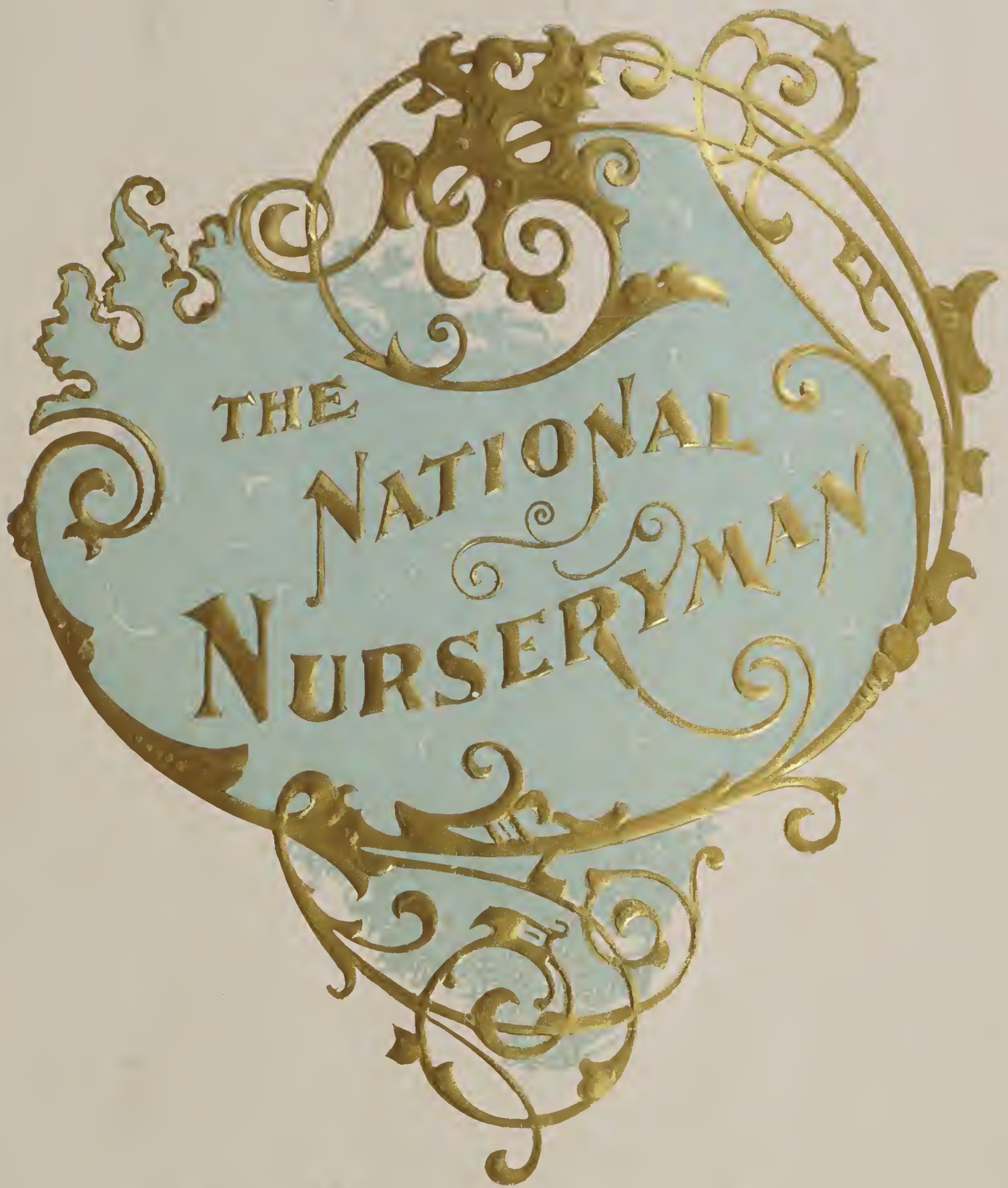
Two Hundred and Seventy Thousand are
Elbertas.

Peach grown from Southern
natural seed.

Our stock guaranteed free
from scale.

J. G. Harrison
& Sons' Nurseries

BERLIN, - MD.



June, 1898.

Painesville



Nurseries.

Located on the shore of Lake Erie, thirty miles east of Cleveland, grow as healthy and hardy nursery stock as can be found between the oceans, consisting of one of the most complete assortments of

*Fruit and Ornamental Trees, Small Fruits, Nut
Bearing Trees, Grape Vines, Shrubs, Roses
Hardy Herbaceous Plants, Climbing Vines
Bulbs and Greenhouse Plants. . .*



Have in Special Surplus.

Mulberry—New American; 4 to 5 and 5 to 6 feet.

Chestnuts—Ridgely, Numbo and Parry's Giant; 4 to 6 and 6 to 7 feet.

Walnut—Japan, Sieboldi; 4 to 5, 5 to 6 and 6 to 8 feet.

“ —English; 2 to 3 and 3 to 4 feet.

“ —Black; 4 to 6, 6 to 8 and 8 to 10 feet.

Persimmon—American; 4 to 5, 5 to 6 and 6 to 8 feet.

Currants—Strong 2-yr.; full assortment.

Gooseberries—Strong 2-yr. and 3-yr.

Blackberries—Especially Snyder, Agawam and Early Harvest; grand root cutting plants.

Dewberry—Lucretia; also **Raspberries, Strawberries** and **Asparagus**.

Fruit Trees—Extra surplus notably some sorts of **Pear, Plum, Cherry, Peach**.

ORNAMENTAL DEPARTMENT.

Especially heavy in

Birch—European White, 10 to 12, 12 to 15 and 15 to 20 ft.

Beech—Purple-leaf; 2 to 3, 3 to 4 and 4 to 5 feet.

Maple—Silver; 8 to 10, 10 to 12, 12 to 15 and 15 to 20 feet.

“ —Norway; 8 to 10, 10 to 12 and 12 to 15 feet.

Magnolia—Acuminata; 4 to 6, 6 to 8 and 8 to 10 feet.

Mountain Ash—5 to 6, 6 to 8 and 8 to 10 feet.

Poplars—Carolina and Lombardy; 8 to 10, 10 to 12 and 12 to 15 feet.

Willows—Gold-bark and Laurel-leaved; 5 to 6, 6 to 8 and 8 to 10 feet.

WEeping TREES.

Birch—Young's; 4 to 6 and 6 to 8 feet.

Elm—Camperdown and Fulva Pendula, 1 and 2yr. heads.

Ash—Mountain; 1 and 2-yr. heads.

Willows—Kilmarnock and New American; 1 and 2yr. heads; Wisconsin, 6 to 8 and 8 to 10 feet.

EVERGREENS.

Arbor Vitæ—American; 1½ to 2, 2 to 3 and 4 to 5 feet.

“ “ —Hovey's Golden; 1½ to 2 and 2 to 3 feet.

“ “ —Pyramidalis; 2 to 3, 3 to 4, 4 to 5 and 5 to 6 ft.

“ “ —Siberian; 1½ to 2 and 3 to 3½ feet.

Spruce—Norway; 1½ to 2, 2 to 3 and 3 to 4 feet.

“ —White; 2 to 3 feet.



*Please let us know your wants and
we will quote you bottom prices. .*



**The Storrs & Harrison Co.,
PAINESVILLE, O.**

"The most complete Nurseries on the American Continent."

THE
**MOUNT
• • HOPE • •
NURSERIES,**
ROCHESTER, N. Y.

ELLWANGER & BARRY, Proprietors.

Established over fifty years ago, and still under the same management.

The largest and most complete collections of General Nursery Stock ever offered; the most approved varieties of FRUIT TREES, new and old, Grape Vines, Currants, Raspberries, Gooseberries, etc.

Superb collections of ORNAMENTAL TREES and SHRUBS, both deciduous and evergreen. HARDY ROSES, HARDY HERBACEOUS PLANTS, HERBACEOUS PÆONIES. HARDY PHLOXES.

Fine stock of Gooseberries and Currants.

Wholesale catalogue mailed free on request.

70,000 Berberry, 18 to 24 inch.
100,000 do 12 to 18 inch.
200,000 do 8 to 12 inch.
150,000 do 6 to 8 inch.
1,000,000 Gardner Strawberry.
100,000 Silver Maple, 2 to 3 ft.
75,000 do 1 to 2 ft.
200,000 Picea Pungens, all sizes.
100,000 Ponderosa Pine, 4 to 6 inch.
50,000 Mt. Ash, stocky, for lining out, 2 ft.

Write for prices to,

GARDNER & SON, PROP'S.,

Osage Nurseries, Osage, Ia.

APPLE SEEDLINGS—carefully graded.

PEACH TREES—No Yellows or Rosette in Nebraska.

LARGE SHADE TREES—2 to 3 inch and smaller sizes.

FOREST SEEDLINGS—Black Locust, Box Elder.

ASH AND SILVER MAPLE.

OSAGE HEDGE PLANTS.

Everything the best and prices right. Apple Grafts made to order.
Our stock is all grown on new land and free from insects or disease.

YOUNGERS & CO.,
GENEVA, NEB.

When writing to advertisers mention The National Nurseryman.

NOVELTIES FOR 1898-1899.

THE ONLY HARDY YELLOW CLIMBING ROSE,

AGLAIA OR YELLOW RAMBLER

[Our stock of this for next season will be about the finest plants ever sent out from our nurseries.]

THE LARGEST BLACK RASPBERRY KNOWN,

CUMBERLAND (TRADE MARK.)

[Strong transplanted plants for next season. Offered only under contract but one very advantageous to our customers.]

LUTHER BURBANK'S NEW WHITE BLACKBERRY,

ICEBERG

[We hold the entire stock of this valuable novelty, it having been placed in our hands by Mr. Burbank for introduction. It has proved hardy here and is a most valuable acquisition.]

OF GENERAL STOCK—We shall have our usual fine assortment of Roses, Clematis, Ornamental Shrubs and Trees. Small Fruit Plants and Fruit Trees.

JACKSON & PERKINS CO., Newark, New York

FREE PLATES
FOR AGENTS USE

will be furnished to all reliable nurserymen who will handle these novelties, depending upon us for their supply of plants. Plates of the Yellow Rambler and Cumberland can be supplied now and one of the Iceberg Blackberry is being prepared.

Handsome Descriptive
Circulars

will also be supplied at less than cost to us.

W. T. HOOD & CO.,

Old Dominion Nurseries

RICHMOND, VA.

Will have a full stock for the trade of fall of '98 and spring of '99 of

Apple, Peach, Standard Pear, Cherry and Ornamentals.
500 bushels of natural Peach Pits, crop of '97.

WANTED—To sell an interest in the **Old Dominion Nurseries** to a thorough practical nurseryman.
W. T. HOOD.

Smiths & Powell Co.,
Syracuse, N. Y.,

offer a large and choice stock of

**BUDDED APPLES,
STANDARD AND DWARF PEARS,
PLUMS, CHERRIES, PEACHES,
ROSES, ORNAMENTAL TREES,
SHRUBS AND VINES.**



Our stock is of superior quality and most carefully graded. Send us your want list or come and see our stock. We issue no trade price list, but will make low prices by letter.

Do not forget the **OLD RELIABLE SYRACUSE NURSERIES.**

ESTABLISHED 1780.

ANDRE LEROY NURSERIES,

Brault & Son, Directors; Angers, France,

Beg to announce to the trade that their extensive spring sowing will enable them to supply for the Fall 1898 and Spring 1899, large quantities of first-class, well-graded **FRUIT SEEDLINGS** at lowest market prices, also a fine and complete variety of **ORNAMENTALS, ROSES, SHRUBS, Etc.** Apply for special quotations to

ANDRE L. CAUSSE, Agent,

105-107 Hudson St.,

NEW YORK.

Rate, including all shipping charges from Angers to F. O. B. New York, given on application.

When writing to advertisers mention The National Nurseryman.

200,000 Peach Trees,
2,000,000 Strawberry Plants,
Eldorado, Maxwell and Lucreiat Blackberries.
MILLER, LOUDON and
COLUMBIAN . .

100,000 Blackberry,
500,000 Raspberries.
TRIUMPH,
GREENSBORO and EMMA,
and a full
assortment of

Raspberries.
Wickson, Red June and Giant
PLUMS. AND OTHER FRUIT.
It will be to advantage of those in the trade to correspond
with us.
Our Catalogue will save you money.

MYER & SON,
BRIDGEVILLE, DELAWARE.

Peach and Plum Trees . . .
FOR SPRING DELIVERY 1898.
All desirable leading old and new varieties of Peaches here in fruit-
ing orchards. Have the new **Triumph**, **Greensboro** and **Sneed** fruit-
ing. Buds can be supplied in season at low rates. Large stock of
Plum trees, all on Plum roots, one and two year. Buds in season
from either nurseries or orchard trees. Have all the leading Japan-
ese varieties, **Abundance**, **Burbank**, **Chabot** **Satsuma**, **Willard** and
others. Also in good supply the new **Red June** and **Wickson** Have
the usual supply of **Asparagus Roots** to offer. Two and three years
old. strong.

ALEXANDER PULLEN,
Milford Nurseries.

MILFORD, DEL.

BREWER & STANNARD.
THE
Ottawa Star Nurseries,
OTTAWA, KANSAS.

Offer a full and complete stock of FRUIT and ORNAMENTAL
TREES, and call your attention especially to
APPLE—Well rooted ; good assortment in all grades.
PEAR—Standard and Dwarf, 2-years ; good assortment.
PLUM ON PLUM—One and 2-years ; American, Japan and Euro-
pean sorts.
PEACH—A fine lot and good assortment.
APRICOTS—Russian and American sorts.
GOOSEBERRIES—2-year ; strong plants, mostly Houghton and Down-
ing.
CURRANTS—One and 2-years ; good assortment, very fine.
FOREST SEEDLINGS—Russian Mulberry, Maple, Box Elder, Black
Locust, Ash, Elm, Catalpa and Osage Hedge.
APPLE SEEDLINGS—All grades, fine healthy plants.
ORNAMENTAL TREES—Strong on Mountain Ash and Maple, 5 to 6
and 6 to 8 feet.
We have also a good assortment of Ornamental Shrubs,
Roses and Vines.
For a more complete list we refer you to our semi-annual trade
list and solicit correspondence.
When writing to Advertisers mention The National Nurseryman.

SNOWHILL NURSERIES.
Must be Sold to Clear the Land.
300,000 Peach Trees—One year from bud, in four grades.
20,000 Japan Plums—One year old.
20,000 Grape Vines—Two and three years old.
100,000 Asparagus Roots—Two and three years old.
Three Million Strawberry Plants.

Favor us with your list of wants. Our prices will surprise you.
Descriptive catalogue if requested.

W. M. PETERS SONS,
WESLEY, MD.

PEACH TREES { Leading Varieties.
All Grades.
Grown in a section which is conceded to produce the healthiest trees.
Well matured to the tips. Good roots. No Rosette, no Yellows,
no Scale. Health certificate furnished with each shipment.
Carefully graded, low prices. Correspondence solicited.
W. D. BEATIE, - - Atlanta, Ga.

P. SEBIRE & SONS, Nurserymen,
USSY, CALVADOS, FRANCE.

A general assortment of Fruit Tree Stocks, such as Apple, Pear, Myro-
bolan Plum, Mahaleb and Mazzard Cherry, Angers Quince, Small
Evergreens, Forest Trees, Ornamental Shrubs, Roses, Etc. The largest
stock in the country. Prices very low. Packing secured. Send for quota-
tions before placing your orders elsewhere. Catalogue free. Agents for
U. S. America and Canada.
C. C. ABEL & CO., P. O. Box 920, New York.

WANTED
THE ONTARIO NURSERIES, Geneva, N. Y.

A man experienced in hiring and
running nursery agents, some one that
has a little capital who could take an
interest in the business preferred. Ad-
dress, stating what experience you
have had in the business, whether you
are a stenographer or not, etc., etc.

“Here we are again,” as the Clown says in the
Pantomine.
If our LABELS are not in evidence at the
Omaha Convention you can get prices and
samples by sending us your address . .
BENJAMIN CHASE, = = Derry, N. H.
When writing to Advertisers mention The National Nurseryman.

APPLE
 STD. PEAR
 CHERRY
 PEACH, Etc.
 The Very Finest
 OUR PRICES WILL SUIT YOU, WRITE US FOR THEM.
 THE MONROE NURSERIES,
 I. E. Ilgenfritz's Sons,
 MONROE,
 MICH.

THE SEDGWICK NURSERY CO.

SEDGWICK, KANSAS.

(Successor to CHAUNCEY A. SEAMAN,)

Offer SHADE TREES in car lots at bottom prices.

SPECIALTIES for '97-'98.

POMONA CURRANT, 1 and 2 yrs., No. 1. 50,000 POMONA CURRANT cuttings.
 LOUDON RASPBERRIES, suckers and transplants.
 MUNGER, the new, large BLACK CAP RASPBERRY.
 OHMER and ELDORADO BLACKBERRIES.

Ornamental Trees and Shrubs. Paeonias, Hardy Herbaceous Plants, &c.
INSPECTION OF STOCK DESIRED.

E. Y. TEAS, - IRVINGTON, IND. (near Indianapolis).

High Grade Nursery Stock for Spring of '98.

Apples, Standard and Dwarf Pears, Cherries, Plums, Quinces,
 Cut-Leaf Weeping Birch, Purple-Leaf Birch, Silver Maple,
 Elms, Catalpa, Black Walnut and Butternut.

Write for Special Prices.

JAY WOOD, KNOWLESVILLE, N. Y.

FLEMER & FELMLY, SPRINGFIELD, N. J.

OUR SPECIALTIES **PEACH AND PLUM.**

JAPAN WALNUT, SHADE TREES, CAL. PRIVET and SHRUBBERY.

STOCK GOOD AND PRICES RIGHT.

Apple, Peach, Standard Pears, Plum, Apricots, Grapes, Shade Trees, Evergreens, Shrubs,	HEADQUARTERS FOR NURSERY STOCK. Baltimore and Richmond Nurseries, BALTIMORE, MD. FRANKLIN DAVIS NURSERY CO. 50 YEARS. Tennessee Natural Peach Pits and selected Smock. 1000 ACRES. LOW PRICES ON PEACH TREES FOR EARLY ORDERS.	Strawberries, Nut Trees, Japan Pear Seedlings, Gooseberries, Roses, Raffia, General Supplies, &c., &c., &c.
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APPLE TREES

Two Years, 5-7 Feet. Northern Sorts.

ABUNDANCE AND . . .
 . . . WILLARD PLUM

Two Years, 5-7 feet. Prices Low.

F.W. WATSON & CO.

TOPEKA, Kans.

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Fairmount Nurseries

TROY, OHIO.

For Fall and Spring trade we have an exceptionally fine stock of

Apple, Std. Pear,
 Plum, Dwf. Pear,
 Cherry, Peach,
 Quince, Grape,
 Apricot, Currants,
 Gooseberry, Evergreens
 and Ornamentals.

HEADQUARTERS FOR

Apple Seedlings

which will be extra fine, and can be shipped either from Troy, Ohio, or Topeka, Kansas.

Favor us with a list of your wants, and we believe we can quote prices that will suit you.

GEO. PETERS & CO.

TROY, OHIO.

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P. J. BERCKMANS.
L. A. BERCKMANS.

ESTABLISHED IN 1856.

R. C. BERCKMANS.
P. J. A. BERCKMANS, JR.

Fruitland Nurseries,

P. J. BERCKMANS, Prop.,
AUGUSTA, - GA.

Over One Acre under glass.

350 Acres in Nursery Stock.

Our Trees and Plants

Have been fully tested in every section of the United States during the past 40 years. The stock now growing is up to the usual past high grade, all of thrifty growth, no old rubbish, and free from scale or disease.

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Apples, Cherries, Figs, Pears, (an extra fine lot of 100 000 standard 2 and 3 years, largely of Kieffer), Paper Shell Pecans, Plums (Japan) on Marianna, English Walnuts, Grape Vines, etc. **Peach Trees** in car load lots.

EVERBEARING PEACH

A valuable novelty now offered for the first time.

Ornamental Department.

150,000 **Amor Privet** - Unsurpassed as an evergreen hedge plant.
50,000 **Citrus Trifoliata**—Japan Hardy Lemon; best defensive hedge plant, stands 15 degrees below zero.

150,000 **Roses**—Field grown, including 30,000 **Marchael Niel** budded upon **Manetti**, 3 to 5 feet.

Two acres in **Canna**.

Azaleas (home grown).

Broad leaved Evergreens, etc., etc., **Biota Aurea Nana**, **Cedrus Deodora**, **Retinosporas** and other rare coniferae.

Greenhouse Department.

100,000 **Palms**—(An especially fine lot of **Latantias**, **Phoenix**, **Pandanus** and **Cocos Weddelliana**.)

Ficus, **Decorative Plants**, **Crotons**, **Bedding Plants**, 10,000 **Camphor Trees**, **Sub-Tropical fruits**, etc.

Send for trade list and descriptive Catalogue.

Bargains in....

* HIGH GRADE STOCK

SPECIALTIES IN FRUIT.

APPLES. Sutton Beauty and Walker Beauty.

ST'D PEARS. Beurre Bosc and Easter Beurre.

CHERRIES. Gov. Wood and Montmorency.

PLUMS. Empire, Wickson and Tennant Prune.

RASPBERRIES. Columbian and Turner.

GOOSEBERRIES, CURRANTS.

SPECIALTIES IN ORNAMENTAL

Cut Leaf Birch, Horse Chestnut, Norway Maples, Sugar Maples,
Lindens, Magnolias, Rhododendrons, Ampelopsis Veitchii,
Tree Roses, Bignonia, Herb Paeonias,
Clematis.

DEALERS' COMPLETE LISTS RECEIVE SPECIAL ATTENTION.

TRADE LIST ON APPLICATION.

W. & T. SMITH CO.,

GENEVA NURSERY,

GENEVA, N. Y.

THE POMONA CURRANT.



The BEST SPECIALTY for the AGENTS for 1897 and 1898.

WHY? Because it is the best MONEY MAKER for the people to plant.

It is BEST in QUALITY.

Its returns come in the *quickest* and *surest*.

These being the qualities the planter is after, he buys it.

Introduced and for sale by us. Send for circulars, plates, terms, &c.

Not only have we a good stock of POMONA CURRANTS,

But also a COMPLETE GENERAL ASSORTMENT of TREES, PLANTS, ORNAMENTALS, VINES, &c., in CAR-LOAD LOTS, especially APPLE, PEAR, CHERRY, PLUM; with good assortment of PEACH and other fruit trees and plants.

Also CAROLINA POPLAR, SOFT MAPLE, ELM, &c.

APPLE STOCKS.

IMPORTED FRENCH PEARS

MAHALEB, MYROBOLAN and QUINCE stocks.

SEE TRADE LIST.

ORDER SPACES EARLY.

A limited quantity of Natural PEACH PITTS to offer.

Address, ALBERTSON & HOBBS,

BRIDGEPORT, MARION CO., INDIANA.

600 Acres.

Established 1852.

13 Greenhouses.

ROSES ALL ON OWN ROOTS OUR OWN GROWING

Large Stock of Leading Varieties,

Hybrid Perpetuals, Moss and Climbing, Field Grown,
Dormant, 2 Years. Everblooming and Hybrid
Perpetuals, from 4 inch Pots.

Prices and List of Varieties Sent on Application.

Keiffer Pears

STANDARD, FOR SPRING '98.

Very Large and Fine Stock of 6 to 8, 5 to 7, and 4 to 6
feet, at Low Prices in Quantity.

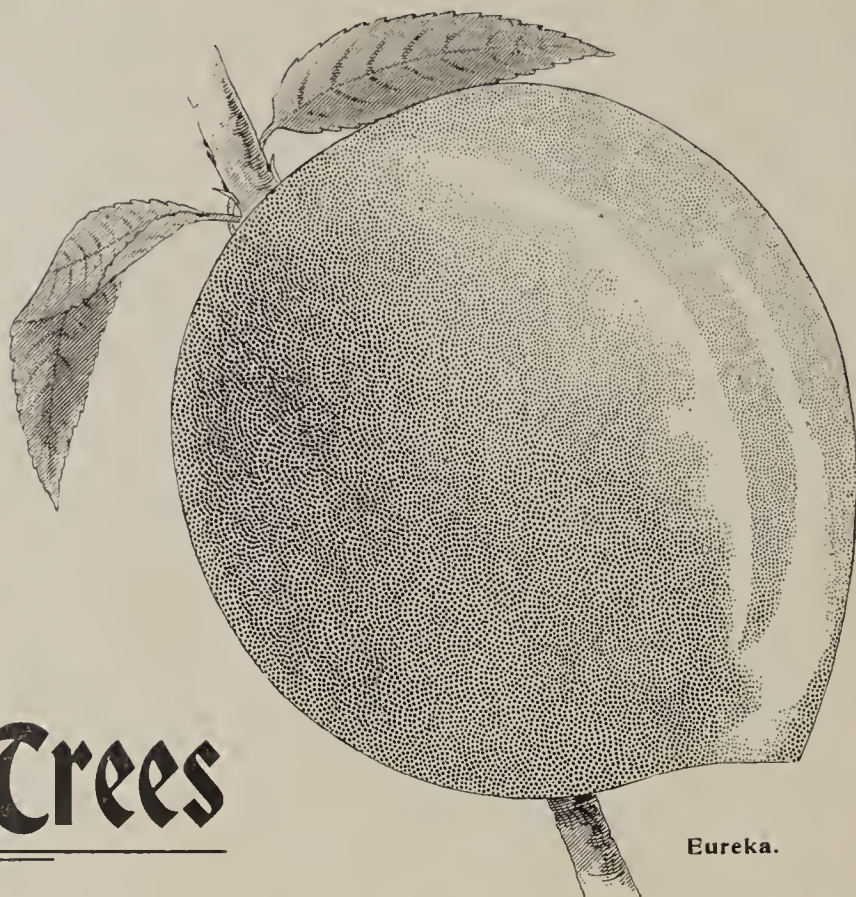
A complete line of Nursery and Greenhouse Stocks.
Send for Trade List.

PHOENIX NURSERY COMPANY,

P. O. Box 625.

BLOOMINGTON, ILL.

Harrison's Nurseries.



OUR BUDDED LIST includes
the best varieties in cultiva-
tion.

Over One Million Trees

Send your list of wants at once.

Alexander.....	2,075	Fitzgerald.....	19,782	Reeve's Favorite.....	120,130
Brandywine.....	1,610	Ford's L. White.....	4,042	Stephens R. Ripe.....	26,565
Bilyleau's October.....	6,275	Geary's Holdon.....	5,275	Smock.....	28,955
Bernard's Early.....	1,650	Greensboro.....	16,581	Salway.....	22,325
Bokara No. 3.....	5,315	Gold Drop.....	4,580	Snow's Orange.....	2,235
Bray's R. Ripe.....	6,710	Globe.....	33,920	Stump the World.....	49,309
Carman.....	3,080	Hill's Chili.....	2,140	Sneed.....	11,700
Crawford's Late.....	98,702	Hale's Early.....	4,010	Thurber.....	780
Crawford's Early.....	12,012	Kalamazoo.....	4,468	Triumph.....	21,566
Conet's So. Early.....	7,303	Lemon Free.....	5,550	Troths Early.....	2,195
Champion.....	6,650	Lewis.....	3,910	Wonderful.....	5,605
Chair's Choice.....	99,387	Lorentz.....	2,170	Wheatland.....	31,861
Crosby.....	4,077	Levy's Late.....	2,120	Wager.....	2,455
Conneticut.....	3,935	Moore's Fav.....	6,272	Willet.....	3,777
Chinese Cling.....	2,600	MeIntosh.....	2,320	Walker's Variegated Free.....	9,920
Elberta.....	282,604	Morris' White.....	6,514	Wilkins Cling.....	2,835
Emma.....	2,080	Mt. Rose.....	58,148	White Heath Cling.....	3,300
Early Rivers.....	7,131	Mt. Rose Ripe.....	1,000	Waddell.....	1,300
Eureka.....	4,919	New Prolife.....	6,070	Water Loo.....	1,115
Early Michigan.....	6,706	Old Mixon Cling.....	1,880	Yellow St. John.....	9,650
Fox Seedling.....	28,758	Old Mixon Free.....	53,377		
Foster.....	7,042	Prise.....	1,345		
				Total Amount.....	1,203,573

June Budded Peach Trees

will be grown on contract at a reasonable price. We have the buds and seedlings from natural seed and can do the work.

We are free from SCALE and YELLOWS and invite your personal inspection.

Plum Trees

on Plum Root and on Peach Root.

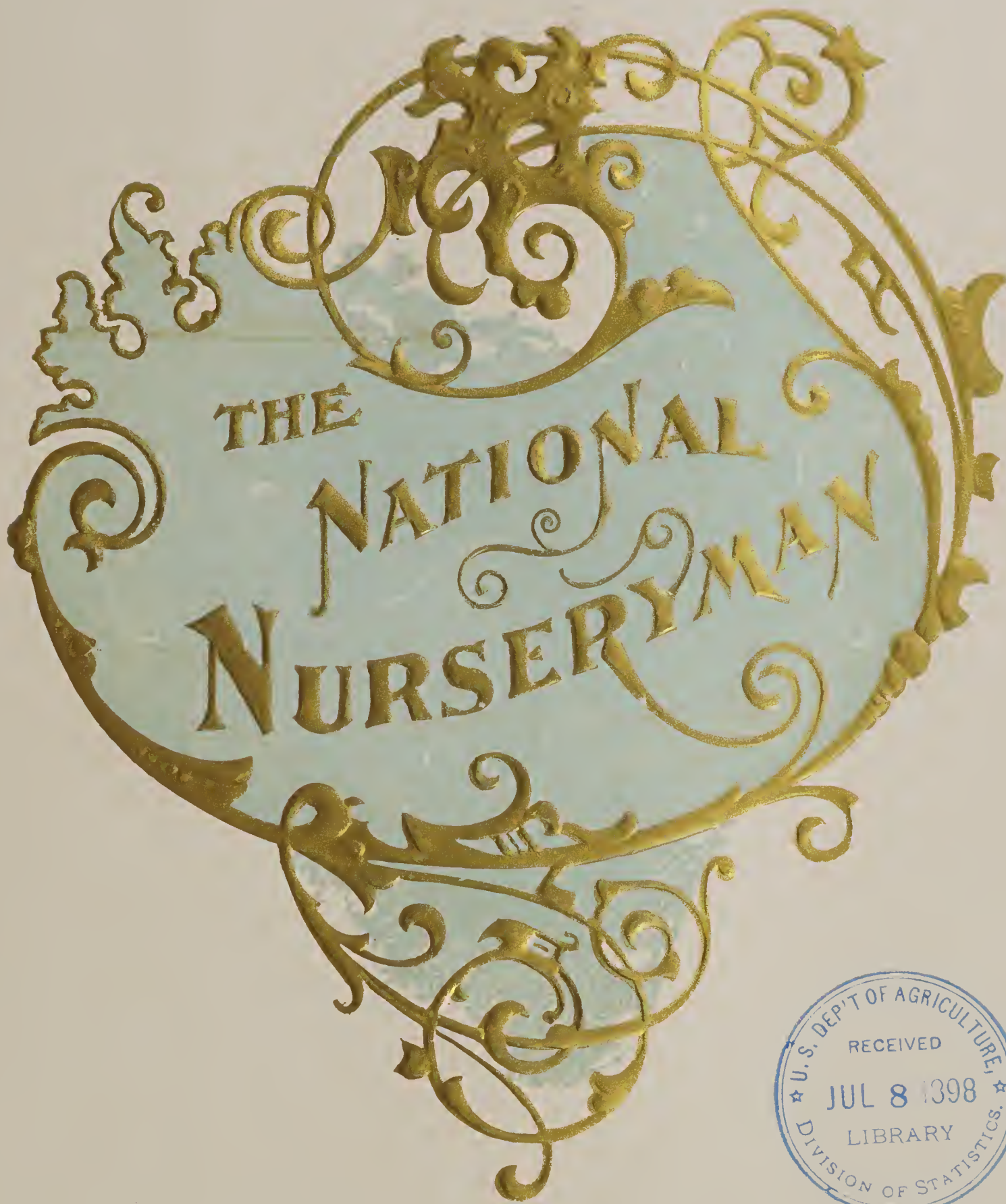
Buds

of all varieties of Peaches given in this list at lowest possible price.

J. G. Harrison & Sons Nurseries,

BERLIN, - MD.

Will be represented at Omaha by Orlando Harrison.



July, 1898.



PAINESVILLE NURSERIES.

Located on the shore of Lake Erie, thirty miles east of Cleveland, grow as healthy and hardy nursery stock as can be found between the oceans, consisting of one of the most complete assortments of

Fruit and Ornamental Trees,
Small Fruits, Nut Bearing
Trees, Grape Vines, Shrubs,

Roses, Hardy Herbaceous
Plants, Climbing Vines, Bulbs
and Greenhouse Plants.

GROW MOST LARGELY.— Standard and Dwarf Pear, embracing all the leading sorts. European and Japan Plum, an extraordinary fine stock.

PEACH.— The product of a million budding, grown on the bank of Lake Erie, two miles removed from any peach orchards, and guaranteed free from peach borers, the great enemy to successful peach culture. Have our usual amount of other fruit trees, Apple, Cherry, Quince, Apricot, Nectarine, Mulberry, Persimmon.

SMALL FRUITS AND GRAPE VINES.— A full assortment, especially heavy in Gooseberries, Currants and root cutting Blackberry plants.

Headquarters for Ornamental Trees and Shrubs, including all the popular sorts.

WEeping TREES.— Particularly heavy in Teas Weeping Mulberry, the most satisfactory of all the decidedly drooping trees, also in Kilmarnock and Wisconsin Weeping Willows, as nice, clean stock as can be found, besides good supply of New American Willows, Camperdown, Elm, Mountain and European Weeping Ash, Cut Leaved and Young's Weeping Birches, Weeping Birch, Cornus, etc.

ROSES.— Nursery Grown our specialty and we flatter ourselves that we place a budded rose on the market, unexcelled by any grown in Europe or America, which are less liable to sucker than those grown by any other concern, roses that will make a more vigorous growth and continue more floriferous than those grown on own roots, still we can supply more or less on own roots when they are preferred.

OUR GREENHOUSE DEPARTMENT— Consists of 32 houses, filled to overflowing with Roses, Palms, Araucarias, Ficus, Begonias, Dracenas, Pandanus, Ferns, etc. To provide for our increasing trade in this line, we are building 12 additional greenhouses, to be heated with two fifty-five horse power boilers.

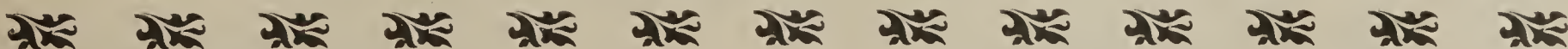
HOLLAND BULBS.— Have large stocks ordered from best growers that surely will please customers.

Correspondence Solicited. . . .

. . . Trade Lists and Catalogues Free.

The Storrs & Harrison Co.,

PAINESVILLE, OHIO.



"The most complete Nurseries on the American Continent."

THE
**MOUNT
• • HOPE • •
NURSERIES,**
ROCHESTER, N. Y.

ELLWANGER & BARRY, Proprietors.

Established over fifty years ago, and still under the same management.

The largest and most complete collections of General Nursery Stock ever offered; the most approved varieties of FRUIT TREES, new and old, Grape Vines, Currants, Raspberries, Gooseberries, etc.

Superb collections of ORNAMENTAL TREES and SHRUBS, both deciduous and evergreen. HARDY ROSES, HARDY HERBACEOUS PLANTS, HERBACEOUS PÆONIES. HARDY PHLOXES.

Fine stock of Gooseberries and Currants.

Wholesale catalogue mailed free on request.

FOR FALL '98 AND SPRING '99.

20,000 Kenyon Red Raspberry,
20,000 Turner,
300,000 Elm, 1 year,
25,000 Silver Maple, 3 to 4 ft.,
75,000 Berberry, 1, 2 and 3 years old,
5,000 Picea Pungens, transplanted, 18 to 24 in.
10,000 " " " 12 to 18 in.
25,000 " " " 8 to 12 in.
50,000 " " seedlings, 2 years, 2 to 4 in.
50,000 Ponderosa Pine, " " 4 to 6 in.
1,000 Paeony, Double Rose.
1,000 Paeony, Double Chinese.
500 P. L. Birch, 5 to 6 ft.
20,000 American and European Mt. Ash, transplanted, $\frac{1}{2}$, $\frac{2}{3}$, $\frac{3}{4}$ and 4 to 5 ft.
10,000 Horse Chestnut, transplanted, $\frac{2}{3}$ and $\frac{3}{4}$ ft.

✻ **GARDNER & SON, Osage, Iowa.**

APPLE SEEDLINGS—carefully graded.

PEACH TREES—No Yellows or Rosette in Nebraska.

LARGE SHADE TREES—2 to 3 inch and smaller sizes.

FOREST SEEDLINGS—Black Locust, Box Elder.

ASH AND SILVER MAPLE.

OSAGE HEDGE PLANTS.

Everything the best and prices right. Apple Grafts made to order.
Our stock is all grown on new land and free from insects or disease.

YOUNGERS & CO.,
GENEVA, NEB.

When writing to advertisers mention The National Nurseryman.

NOVELTIES FOR 1898-1899.

THE ONLY HARDY YELLOW CLIMBING ROSE,
AGLAIA OR YELLOW RAMBLER

[Our stock of this for next season will be about the finest plants ever sent out from our nurseries.]

THE LARGEST BLACK RASPBERRY KNOWN,
CUMBERLAND (TRADE MARK.)

[Strong transplanted plants for next season.]

LUTHER BURBANK'S NEW WHITE BLACKBERRY,
ICEBERG • • •

[We hold the entire stock of this valuable novelty, it having been placed in our hands by Mr. Burbank for introduction. It has proved hardy here and is a most valuable acquisition.]

OF GENERAL STOCK.—We shall have our usual fine assortment of Roses, Clematis, Ornamental Shrubs and Trees. Small Fruit Plants and Fruit Trees.

JACKSON & PERKINS CO., Newark, New York

FREE PLATES
FOR AGENTS USE

will be furnished to all reliable nurserymen who will handle these novelties, depending upon us for their supply of plants.

Plates of the Yellow Rambler and Cumberland can be supplied now and one of the Iceberg Blackberry is being prepared.

Handsome Descriptive
Circulars

will also be supplied at less than cost to us.

**LOUIS LEROY'S
NURSERIES**

(Established 1795.)

ANGERS, (M. & L.) FRANCE.

GROWER AND WHOLESALE EXPORTER OF

FRUIT, FOREST and ORNAMENTAL STOCK

Camellias, Clematis, Coniferæ, Lilacs, Magnolias, Rhododendrons, Roses, Shrubs. Etc.

Prices, catalogues and all other information can be obtained by addressing

AUG. RHOTERT,

SOLE AGENT,

26 Barclay Street, (P. O. Box 2250) New York.

W. T. HOOD & CO.,

Old Dominion Nurseries

RICHMOND, VA.

Will have a full stock for the trade of fall of '98 and spring of '99 of

Apple, Peach, Standard Pear, Cherry and Ornamentals.

500 bushels of natural Peach Pits, crop of '97.

WANTED—To sell an interest in the Old Dominion Nurseries to a thorough practical nurseryman. **W. T. HOOD.**

Smiths & Powell Co.,

Syracuse, N. Y.,

offer a large and choice stock of

BUDDED APPLES,

STANDARD AND DWARF PEARS,

PLUMS, CHERRIES, PEACHES,

ROSES, ORNAMENTAL TREES,

SHRUBS AND VINES.

Our stock is of superior quality and most carefully graded. Send us your want list or come and see our stock. We issue no trade price list, but will make low prices by letter.

Do not forget the **OLD RELIABLE SYRACUSE NURSERIES.**

When writing to Advertisers mention The National Nurseryman.

October Purple Plum

Mr. Luther Burbank's latest, and he says best production. The fruit is one of the most attractive, as well as the best of all the Japan Plums. The color is reddish purple with a beautiful purple bloom. Form round. Size large ; some specimens sent us measuring over seven inches in circumference. It is a late variety as its name indicates. The tree is an erect handsome grower, forming an upright head like that of the Abundance. It is sure to have a large sale. We offer to the trade for this Fall a limited number of one year old trees. Prices given on application. No buds sold this season.

Address **Stephen Hoyt's Sons, New Canaan, Conn.**

GRAPE

An extra fine stock of CURRANTS at very low prices, including the valuable new WILDER. Also DOWNING GOOSEBERRIES, very cheap. Other small fruits.

T. S. HUBBARD CO.,
FREDONIA, N. Y.

ALL OLD AND NEW VARIETIES.
Immense Stock,
Warranted True.
QUALITY UNSURPASSED.
Send list of wants for prices.

VINES

- Of my own growing

- 2000 Bismarck Apple.
 - 1000 Hale Plum.
 - 5000 Snow Ball.
 - 2000 Altheas, Totus Albus and Jeanne D'Arc.
 - 3000 Dogwood—variegated leaf.

Imported Seedlings, Tree Roses, Rhododendrons, Industry Gooseberry, etc., of superior quality.

Hiram T. Jones, Union Co. Nurseries, Elizabeth, N. J.

The Sparta Nurseries

bush Cranberry, Juneberry and Huckelberry included. Ask for prices and terms.

have to offer their Usual stock of dry baled Moss, both burlap and wired bales, and of the finest quality on the market. Also a full line of small fruit plants, high

Z. K. JEWETT & CO., Sparta, Wis.

ESTABLISHED 1866 BY BLAIR BROS.

R. H. BLAIR & CO.,

O fice N. W. Cor. 11th and Walnut Sts., - Kansas City, Mo.

Proprietors of the LEES SUMMIT NURSERIES.

Apple and Peach, new and leading varieties by the car lots. Russian and American Apricots and native Plums by car lots. Pears, Cherries and a general assortment of Small Fruits and Ornamentals.

We are not surpassed by any Nursery in the west, in number of acres or quality of stock. We have the only practical box-clamp in use. Price reduced.

[ESTABLISHED 1876.]

ALLEN L. WOOD,

Rochester, N. Y.

EXTRA FINE PLANTS

At . . Wholesale.

The Largest Stock of

CURRANTS, GOOSEBERRIES,

RASPBERRIES, BLACK-BERRIES, Etc.

in the United States. . . .

I will enter your order for ten plants, up to a carload, of any varieties. It will pay you to get my prices.

When writing to advertisers mention The National Nurseryman.

Stakes for

NURSERY ROWS,
PACKING YARDS,
ROSE TREES, LILLIES,
and Everything in that Line
for the Nurserymen.

GREEN ELM CLEATS AND CORNERS.

J. E. CURTISS, BARRE CENTER, NEW YORK.

Honey Locust Hedge,

Most Ornamental for Parks and Lawns.

Strong and handsome for farm fencing. Hardy for cold climates. Easy seller at good profits. Put your agents on to it. Plates of this beautiful Hedge to sell from, furnished cheap. OSAGE ORANGE HEDGE and plates also.

WRITE FOR PRICES AND TRY THEM.

A. E. WINDSOR, - - - HAVANA, ILLS.

Ornamental

LARGE SMALL TREES

FLOWERING SHRUBS in great variety. Descriptive Cata'ogue and Price-List free.

SAMUEL C. MOON, Morrisville, Bucks County, Pa.

NURSERYMEN

Should read this, I have just what you want. Always in stock, a nice clean article of dry baled SPHAGNUM MOSS. No delay or freight charges from branch roads. Orders for less than large car load shipped the first day received.

L. G. THOMPSON,

Write me for easy terms and prices. TOMAH, WIS.

Wabash R. R.

Offers Unexcelled Service to the WEST.

4 Daily Vestibuled Trains, BUFFALO to CHICAGO.

2 Daily Vestibuled Trains, BUFFALO to ST. LOUIS, KANSAS CITY and OMAHA.

FREE RECLINING CHAIR CARS.
WAGNER SLEEPING CARS.
WABASH DINING CARS.

Full information regarding rates, etc., cheerfully given. . . .Address, O. S. CRANE, G. P. & T. A., St. Louis, Mo.

JAMES GASS, N. Y. S. P. A., 287 Main, Buffalo, N. Y. R. F. KELLEY, G. A. P. D., 287 Main, Buffalo, N. Y.

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©

**APPLE
STD. PEAR
CHERRY
PEACH, Etc.**

The Very Finest . . .

OUR PRICES WILL SUIT YOU, WRITE US FOR THEM.

**THE MONROE NURSERIES,
I. E. Ilgenfritz's Sons,
MONROE,
MICH.**

©

YOUNG MAN thoroughly familiar with retail nursery business in all its branches, would accept position to handle salesmen or take charge of a branch office. Would like to arrange with grower to conduct retail agency business. Can show a good record. Address "E. L.," care of NATIONAL NURSERYMAN, Rochester, N. Y.

WANTED.

A few more experienced peach budders for fall. We pay R. R. fare. Write

**J. E. HEINE NURSERY CO.,
ORWIGSBURG, PA.**

SPECIALTIES for '97-'98.

POMONA CURRANT, 1 and 2 yrs., No. 1. 50,000 POMONA CURRANT cuttings.
LOUDON RASPBERRIES, suckers and transplants.
MUNGER, the new, large BLACK CAP RASPBERRY.
OHMER and ELDORADO BLACKBERRIES.

Ornamental Trees and Shrubs. Peonias, Hardy Herbaceous Plants, &c.
INSPECTION OF STOCK DESIRED.

E. Y. TEAS, - IRVINGTON, IND, (near Indianapolis).

High Grade Nursery Stock for Spring of '98.

Apples, Standard and Dwarf Pears, Cherries, Plums, Quinces,
Cut-Leaf Weeping Birch, Purple-Leaf Birch, Silver Maple,
Elms, Catalpa, Black Walnut and Butternut.

Write for Special Prices.

JAY WOOD, KNOWLESVILLE, N. Y.

FLEMER & FELMLY, SPRINGFIELD, N. J.

OUR SPECIALTIES **PEACH AND PLUM.**

JAPAN WALNUT, SHADE TREES, CAL. PRIVET and SHRUBBERY.

STOCK GOOD AND PRICES RIGHT.

<p>Apple, Peach, Standard Pears, Plum, Apricots, Grapes, Shade Trees, Evergreens, Shrubs,</p>	<p>HEADQUARTERS FOR NURSERY STOCK.</p> <p>Baltimore and Richmond Nurseries, BALTIMORE, MD. FRANKLIN DAVIS NURSERY CO. 50 YEARS. Tennessee Natural Peach Pits and selected Smock. 1000 ACRES. LOW PRICES ON PEACH TREES FOR EARLY ORDERS.</p>	<p>Strawberries, Nut Trees, Japan Pear Seedlings, Gooseberries, Roses, Raffia, General Supplies, &c., &c., &c.</p>
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**APPLE
TREES**

Two Years, 5-7 Feet. Northern Sorts.

**ABUNDANCE AND . . .
. . . WILLARD PLUM**

Two Years, 5-7 feet. Prices Low.

F.W. WATSON & CO.
TOPEKA, Kans.

When writing to Advertisers mention The National Nurseryman.

Fairmount Nurseries

TROY, OHIO.

For Fall and Spring trade we have an exceptionally fine stock of

**Apple, Std. Pear,
Plum, Dwf. Pear,
Cherry, Peach,
Quince, Grape,
Apricot, Currants,
Gooseberry, Evergreens
and Ornamentals.**

HEADQUARTERS FOR

Apple Seedlings

which will be extra fine, and can be shipped either from Troy, Ohio, or Topeka, Kansas.

Favor us with a list of your wants, and we believe we can quote prices that will suit you.

GEO. PETERS & CO.
TROY, OHIO.

When writing to Advertisers mention The National Nurseryman.

WOOD LABELS

The Omaha Convention . . .

is a thing of the past, but a supply of labels for the season near at hand will soon be a live question with nurserymen in general.

We shall have a large stock in readiness from which shipments will be made with our customary *promptness* and the *quality* of our product is unexcelled.

Samples and Prices Cheerfully Furnished on Application.

BENJAMIN CHASE, . . DERRY, NEW HAMPSHIRE.

200,000 Peach Trees, | 100,000 Blackberry,
2,000,000 Strawberry Plants, | 500,000 Raspberries.

Eldorado, Maxwell and Lucreiat Blackberries.

MILLER, LOUDON and
COLUMBIAN . .

TRIUMPH,
GREENSBORO and EMMA,

Raspberries.

and a full
assortment of

Wickson, Red June and Giant

Peaches

PLUMS.

. . . . AND OTHER FRUIT.

It will be to advantage of those in the trade to correspond
with us.

Our Catalogue will save you money.

MYER & SON,
BRIDGEVILLE, DELAWARE.

Peach and Plum Trees . . .

FOR SPRING DELIVERY 1898.

All desirable leading old and new varieties of Peaches here in fruiting orchards. Have the new **Triumph**, **Greensboro** and **Sneed** fruiting. Buds can be supplied in season at low rates. Large stock of **Plum** trees, all on Plum roots, one and two year. Buds in season from either nurseries or orchard trees. Have all the leading Japanese varieties, **Abundance**, **Burbank**, **Chabot**, **Satsuma**, **Willard** and others. Also in good supply the new **Red June** and **Wickson**. Have the usual supply of **Asparagus Roots** to offer. Two and three years old. strong.

ALEXANDER PULLEN,

Milford Nurseries.

MILFORD, DEL.

BREWER & STANNARD.

— THE —

Ottawa Star Nurseries,

OTTAWA, KANSAS.

Offer a full and complete stock of **FRUIT and ORNAMENTAL TREES**, and call your attention especially to

APPLE—Well rooted ; good assortment in all grades.

PEAR—Standard and Dwarf, 2-years ; good assortment.

PLUM ON PLUM—One and 2-years ; American, Japan and European sorts.

PEACH—A fine lot and good assortment.

APRICOTS—Russian and American sorts.

GOOSEBERRIES—2-year ; strong plants, mostly Houghton and Downing.

CURRENTS—One and 2-years ; good assortment, very fine.

FOREST SEEDLINGS—Russian Mulberry, Maple, Box Elder, Black Locust, Ash, Elm, Catalpa and Osage Hedge.

APPLE SEEDLINGS—All grades, fine healthy plants.

ORNAMENTAL TREES—Strong on Mountain Ash and Maple, 5 to 6 and 6 to 8 feet.

We have also a good assortment of **Ornamental Shrubs, Roses and Vines.**

For a more complete list we refer you to our semi-annual trade list and solicit correspondence.

When writing to Advertisers mention The National Nurseryman.

SNOWHILL NURSERIES.

Must be Sold to Clear the Land.

300,000 Peach Trees—One year from bud, in four grades.

20,000 Japan Plums—One year old.

20,000 Grape Vines—Two and three years old.

100,000 Asparagus Roots—Two and three years old.

Three Million Strawberry Plants.

Favor us with your list of wants. Our prices will surprise you. Descriptive catalogue if requested.

W. M. PETERS SONS,

WESLEY, MD.

PEARS *Standard* ^{AND} *Dwarf*, **PLUMS**

FOR SALE

At less than it costs to grow them. State how many you can use and what grade, and I will quote you prices that will secure your order.

Address **D. H. PATTY, Nurseryman,**
GENEVA, N. Y.

P. SEBIRE & SONS, Nurserymen,

USSY, CALVADOS, FRANCE.

A general assortment of **Fruit Tree Stocks**, such as **Apple**, **Pear**, **Myro-bolan Plum**, **Mahaleb** and **Mazzard Cherry**, **Angers Quince**, **Small Evergreens**, **Forest Trees**, **Ornamental Shrubs**, **Roses**, Etc. The largest stock in the country. Prices very low. Packing secured. Send for quotations before placing your orders elsewhere. Catalogue free. Agents for U. S. America and Canada.

C. C. ABEL & CO., P. O. Box 920, New York.

ESTABLISHED 1780.

ANDRE LEROY NURSERIES,

Brault & Son, Directors, Angers, France,

Beg to announce to the trade that their extensive spring sowing will enable them to supply for the Fall 1898 and Spring 1899, large quantities of first-class, well-graded **FRUIT SEEDLINGS** at lowest market prices, also a fine and complete variety of **ORNAMENTALS, ROSES, SHRUBS**, Etc. Apply for special quotations to

ANDRE L. CAUSSE, Agent,

105-107 Hudson St.,

NEW YORK.

Rate, including all shipping charges from Angers to F. O. B. New York, given on application.

When writing to Advertisers mention The National Nurseryman.

WAR PRICES

Haven't Struck
Us Yet, . . .

But don't wait till they do. Order Now.

WOOD LABELS.

— 2½ INCH —

*Printed
and
Wired with
Iron, Brass or
Copper
Wire.*



WOOD LABELS.

— 3½ INCH. —

*Blank
Painted and
Wired
with Iron,
Brass or Cop-
per Wire.*

THE 2½-INCH printed and wired labels are packed in cartoons of 1,000 each, the outside of cartoon showing the contents contained. This cartoon is divided into ten separate and equal sections, each section containing four bunches of twenty-five labels each, bound together by wire, no section containing more than one printed variety, thus enabling you to keep an accurate account of the number of each variety used and on hand, saving time, trouble and waste of labels, a convenience never before attained in the handling of tree labels. Our exhibit of labels at the annual meeting of the Association of Nurserymen at Omaha, were highly commended as to superiority in quality, and style of packing.

Samples and Prices Upon Application. Your Correspondence Solicited.

Harrison's Nurseries.

OUR BUDDED LIST includes
the best varieties in cultiva-
tion.

Over One Million Trees

Send your list of wants at once.



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Chinese Cling.....	2,600	McIntoch.....	2,320	Walker's Variegated Free....	9,920
Elberta.....	282,604	Morris' White.....	6,514	Wilkins Cling.....	2,835
Emma.....	2,080	Mt. Rose.....	58,148	White Heath Cling.....	3,300
Early Rivers.....	7,131	Mt. Rose Ripe.....	1,000	Waddell.....	1,300
Eureka.....	4,919	New Prolific.....	6,070	Water Loo.....	1,115
Early Michigan.....	6,706	Old Mixon Cling.....	1,880	Yellow St. John.....	9,650
Fox Seedling.....	28,758	Old Mixon Free.....	53,377		
Foster.....	7,042	Prise.....	1,345		
				Total Amount.....	1,203,573

June Budded Peach Trees

will be grown on contract at a reasonable price. We have the buds and seedlings from natural seed and can do the work.

We are free from SCALE and YELLOWS and invite your personal inspection.

Plum Trees

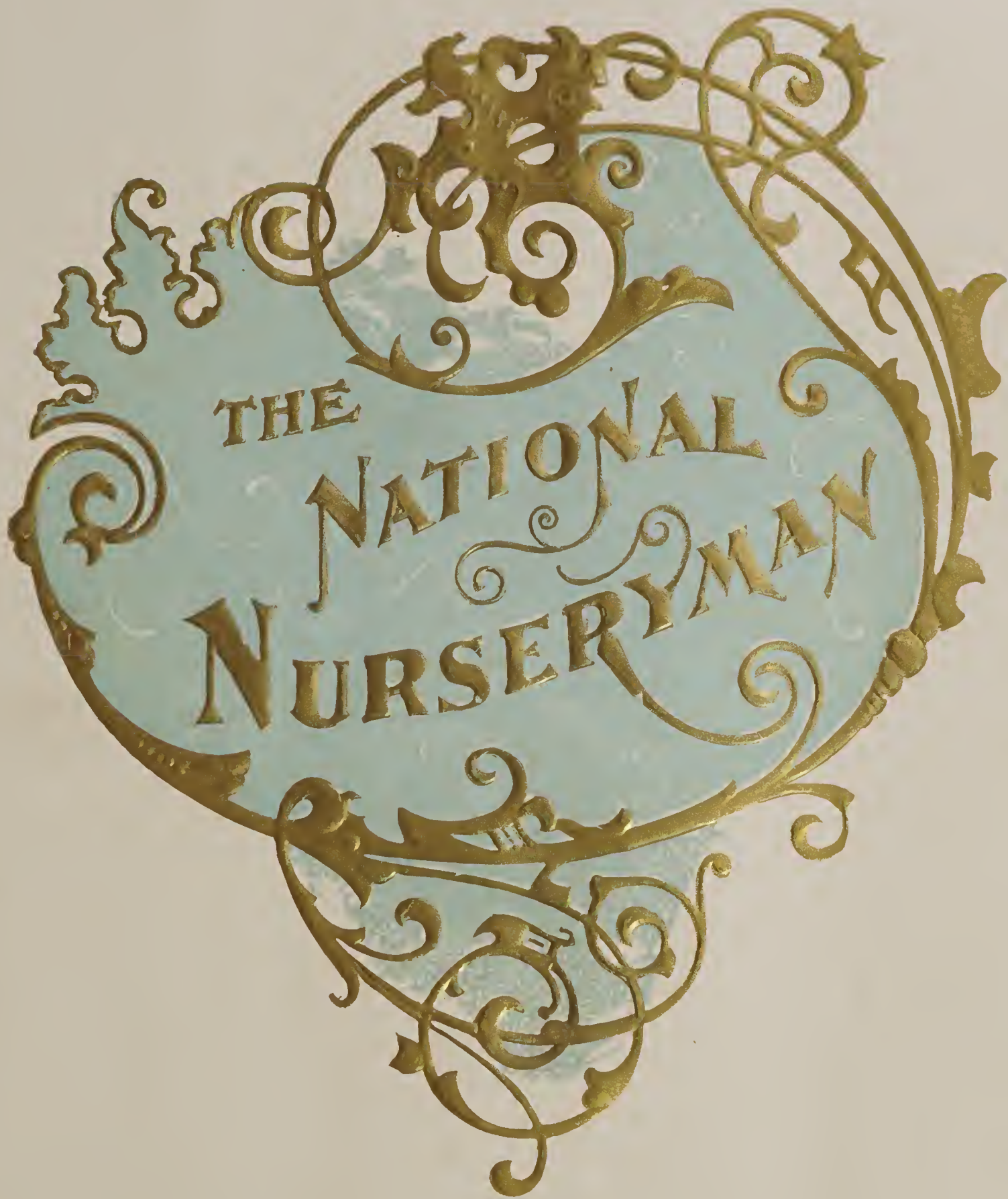
on Plum Root and on Peach Root. . . .

Buds

of all varieties of Peaches given in this list at lowest possible price.

J. G. Harrison & Sons Nurseries,

BERLIN, - MD.



August, 1898.



PAINESVILLE NURSERIES.

Located on the shore of Lake Erie, thirty miles east of Cleveland, grow as healthy and hardy nursery stock as can be found between the oceans, consisting of one of the most complete assortments of

Fruit and Ornamental Trees,
Small Fruits, Nut Bearing
Trees, Grape Vines, Shrubs,

Roses, Hardy Herbaceous
Plants, Climbing Vines, Bulbs
and Greenhouse Plants.

GROW MOST LARGELY.— Standard and Dwarf Pear, embracing all the leading sorts. European and Japan Plum, an extraordinary fine stock.

PEACH.— The product of a million budding, grown on the bank of Lake Erie, two miles removed from any peach orchards, and guaranteed free from peach borers, the great enemy to successful peach culture. Have our usual amount of other fruit trees, Apple, Cherry, Quince, Apricot, Nectarine, Mulberry, Persimmon.

SMALL FRUITS AND GRAPE VINES.— A full assortment, especially heavy in Gooseberries, Currants and root cutting Blackberry plants.

Headquarters for Ornamental Trees and Shrubs, including all the popular sorts.

WEeping TREES.— Particularly heavy in Teas Weeping Mulberry, the most satisfactory of all the decidedly drooping trees, also in Kilmarnock and Wisconsin Weeping Willows, as nice, clean stock as can be found, besides good supply of New American Willows, Camperdown, Elm, Mountain and European Weeping Ash, Cut Leaved and Young's Weeping Birches, Weeping Birch, Cornus, etc.

ROSES.— Nursery Grown our specialty and we flatter ourselves that we place a budded rose on the market, unexcelled by any grown in Europe or America, which are less liable to sucker than those grown by any other concern, roses that will make a more vigorous growth and continue more floriferous than those grown on own roots, still we can supply more or less on own roots when they are preferred.

OUR GREENHOUSE DEPARTMENT.— Consists of 32 houses, filled to overflowing with Roses, Palms, Araucarias, Ficus, Begonias, Dracenas, Pandanus, Ferns, etc. To provide for our increasing trade in this line, we are building 12 additional greenhouses, to be heated with two fifty-five horse-power boilers.

HOLLAND BULBS.— Have large stocks ordered from best growers that surely will please customers.

Correspondence Solicited. . . .

. . . Trade Lists and Catalogues Free.

The Storrs & Harrison Co.,

PAINESVILLE, OHIO.



"The most complete Nurseries on the American Continent."

THE MOUNT HOPE NURSERIES,

ROCHESTER, N. Y.

ELLWANGER & BARRY, Proprietors.

Established over fifty years ago, and still under the same management.

The largest and most complete collections of General Nursery Stock ever offered; the most approved varieties of FRUIT TREES, new and old, Grape Vines, Currants, Raspberries, Gooseberries, etc.

Superb collections of ORNAMENTAL TREES and SHRUBS, both deciduous and evergreen. HARDY ROSES, HARDY HERBACEOUS PLANTS, HERBACEOUS PÆONIES. HARDY PHLOXES.

Fine stock of Gooseberries and Currants.

Wholesale catalogue mailed free on request.

FOR FALL '98 AND SPRING '99.

- 20,000 Kenyon Red Raspberry,
- 20,000 Turner,
- 300,000 Elm, 1 year,
- 25,000 Silver Maple, 3 to 4 ft.,
- 75,000 Berberry, 1, 2 and 3 years old,
- 5,000 Picea Pungens, transplanted, 18 to 24 in.
- 10,000 " " " 12 to 18 in.
- 25,000 " " " 8 to 12 in.
- 50,000 " " seedlings, 2 years, 2 to 4 in.
- 50,000 Ponderosa Pine, " " 4 to 6 in.
- 1,000 Paeony, Double Rose.
- 1,000 Paeony, Double Chinese.
- 500 P. L. Birch, 5 to 6 ft.
- 20,000 American and European Mt. Ash, transplanted, $\frac{1}{2}$, $\frac{2}{3}$, $\frac{3}{4}$ and 4 to 5 ft.
- 10,000 Horse Chestnut, transplanted, $\frac{2}{3}$ and $\frac{3}{4}$ ft.

❖ GARDNER & SON, Osage, Iowa.

APPLE SEEDLINGS—carefully graded.

PEACH TREES—No Yellows or Rosette in Nebraska.

LARGE SHADE TREES—2 to 3 inch and smaller sizes.

FOREST SEEDLINGS—Black Locust, Box Elder.

ASH AND SILVER MAPLE.

OSAGE HEDGE PLANTS.

Everything the best and prices right. Apple Grafts made to order. Our stock is all grown on new land and free from insects or disease.

YOUNGERS & CO.,

GENEVA, NEB.

When writing to advertisers mention The National Nurseryman.

Jackson & Perkins, NEWARK, New York.

GROWERS OF CHOICE NURSERY STOCK.

NEW ROSES.—Clio, Mrs. Sherman, Crawford, Marchioness of Londonderry, Margaret Dickson, Lord Penzance's Hybrid Sweet Briars, Crimson, Pink, White and Yellow Ramblers, also a fine assortment of older kinds.

CLEMATIS.—Largest stock in the world; full assortment. OTHER CLIMBING PLANTS.—Ampelopsis, Veitchii, Chinese Matrimony Vine, Dutchman's Pipe, Honeysuckles, Wisterias, etc.

SHRUBS.—Exochorda Grandiflora, Halesia Tetraptera, Variegated-leaved Dogwood, Hydrangeas, Snowballs, Lilacs, Spiræas, Deutzias, Weigellias, etc.

CURRENTS AND GOOSEBERRIES.—Fine quality of stock and low prices sold us out clean upon these last season in spite of the glut and we are prepared to offer some attractive bargains this year.

CHERRY. PLUM. PEAR. QUINCE. PEACH.

SPECIALTIES FOR 1898-1899.

Aglaia or Yellow Rambler, the only hardy Yellow Climbing Rose.

CUMBERLAND, (Trade Mark) the largest Black Raspberry known.

ICEBERG, Luther Burbank's new White Blackberry.

Free Plates for Agents Use will be furnished to all reliable nurserymen who will handle these novelties, depending upon us for their supply of plants.

Handsome Descriptive Circulars will also be supplied at less than cost to us.

LOUIS LEROY'S NURSERIES

(Established 1795.)

ANGERS, (M. & L.) FRANCE.

GROWER AND WHOLESALE EXPORTER OF

FRUIT, FOREST and ORNAMENTAL STOCK

Camellias, Clematis, Coniferæ, Lilacs, Magnolias, Rhododendrons, Roses, Shrubs, Etc.

Prices, catalogues and all other information can be obtained by addressing

AUG. RHOTERT,

SOLE AGENT,

26 Barclay Street, (P. O. Box 2250) New York.

W. T. HOOD & CO.,

Old Dominion Nurseries

RICHMOND, VA.

Will have a full stock for the trade of fall of '98 and spring of '99 of

Apple, Peach, Standard Pear, Cherry and Ornamentals.

500 bushels of natural Peach Pits, crop of '97.

WANTED—To sell an interest in the Old Dominion Nurseries to a thorough practical nurseryman. W T. HOOD.

Smiths & Powell Co.,

Syracuse, N. Y.,

offer a large and choice stock of

BUDDED APPLES,
STANDARD AND DWARF PEARS,
PLUMS, CHERRIES, PEACHES,
ROSES, ORNAMENTAL TREES,
SHRUBS AND VINES.

Our stock is of superior quality and most carefully graded. Send us your want list or come and see our stock. We issue no trade price list, but will make low prices by letter.

Do not forget the **OLD RELIABLE SYRACUSE NURSERIES.**

When writing to Advertisers mention The National Nurseryman.

200,000 Peach Trees, | 100,000 Blackberry,
2,000,000 Strawberry Plants, | 500,000 Raspberries.

Eldorado, Maxwell and Lucreiat Blackberries.

MILLER, LOUDON and
COLUMBIAN . .

TRIUMPH,
GREENSBORO and EMMA,

Raspberries.

and a full
assortment of

Wickson, Red June and Giant

Peaches

PLUMS. . . . AND OTHER FRUIT.

It will be to advantage of those in the trade to correspond
with us.
Our Catalogue will save you money.

MYER & SON,
BRIDGEVILLE, DELAWARE.



**1,000,000
Peach Trees**

grown on the bank of Lake
Erie, two miles from any
peach orchards and guar-
anteed free from Scale,
Borers, Yellows, etc. Large
stock of Pear, Plum,
Cherry, Quince and immense supply of Small
Fruit plants. Headquarters for Ornamental
Trees and Shrubs. A quarter of a million of

**LOW
BUDDED ROSES**

32 Greenhouses filled with Roses, Palms,
Araucarias, Ficus, Dracenas, Pandanus, etc.
Will have immense stocks of best Holland Bulbs
for fall. 45th year. 1000 acres. Correspondence
and personal inspection solicited.

THE STORRS & HARRISON CO.,
Box 36. Painesville, Ohio.

BREWER & STANNARD.

— THE —

Ottawa Star Nurseries,
OTTAWA, KANSAS.

Offer a full and complete stock of **FRUIT and ORNAMENTAL
TREES**, and call your attention especially to

APPLE—Well rooted ; good assortment in all grades.

PEAR—Standard and Dwarf, 2-years ; good assortment.

PLUM ON PLUM—One and 2-years ; American, Japan and Euro-
pean sorts.

PEACH—A fine lot and good assortment.

APRICOTS—Russian and American sorts.

GOOSEBERRIES—2-year ; strong plants, mostly Houghton and Down-
ing.

CURRENTS—One and 2-years ; good assortment, very fine.

FOREST SEEDLINGS—Russian Mulberry, Maple, Box Elder, Black
Locust, Ash, Elm, Catalpa and Osage Hedge.

APPLE SEEDLINGS—All grades, fine healthy plants.

ORNAMENTAL TREES—Strong on Mountain Ash and Maple, 5 to 6
and 6 to 8 feet.

We have also a good assortment of Ornamental Shrubs,
Roses and Vines.

For a more complete list we refer you to our semi-annual trade
list and solicit correspondence.

When writing to Advertisers mention The National Nurseryman.

SNOWHILL NURSERIES.

Must be Sold to Clear the Land.

300,000 Peach Trees—One year from bud, in four grades.

20,000 Japan Plums—One year old.

20,000 Grape Vines—Two and three years old.

100,000 Asparagus Roots—Two and three years old.

Three Million Strawberry Plants.

Favor us with your list of wants. Our prices will surprise you.
Descriptive catalogue if requested.

W. M. PETERS SONS,
WESLEY, MD.

WANTED

A purchaser for Standard and Dwarf Pears,
Plums and Kilmarnock Willows. I have a very
handsome stock of the above, and will sell
them for less than it costs to grow them. If
you are in want of any pears, plums, or Kil-
marnocks be sure and get my prices before
placing your order.

Address **D. H. PATTY, Nurseryman, Geneva, N. Y.**

P. SEBIRE & SONS, Nurserymen,
USSY, CALVADOS, FRANCE.

A general assortment of **Fruit Tree Stocks**, such as Apple, Pear, Myro-
bolan Plum, Mahaleb and Mazzard Cherry, Angers Quince, Small
Evergreens, Forest Trees, Ornamental Shrubs, Roses, Etc. The largest
stock in the country. Prices very low. Packing secured. Send for quota-
tions before placing your orders elsewhere. Catalogue free. Agents for
U. S. America and Canada.

C. C. ABEL & CO., P. O. Box 920, New York.

ESTABLISHED 1780.

ANDRE LEROY NURSERIES,

Brault & Son, Directors, Angers, France,

Beg to announce to the trade that their extensive spring sowing
will enable them to supply for the Fall 1898 and Spring 1899, large
quantities of first-class, well-graded **FRUIT SEEDLINGS** at lowest
market prices, also a fine and complete variety of **ORNAMENTALS,**
ROSES, SHRUBS, Etc. Apply for special quotations to

ANDRE L. CAUSSE, Agent,
105-107 Hudson St., NEW YORK.

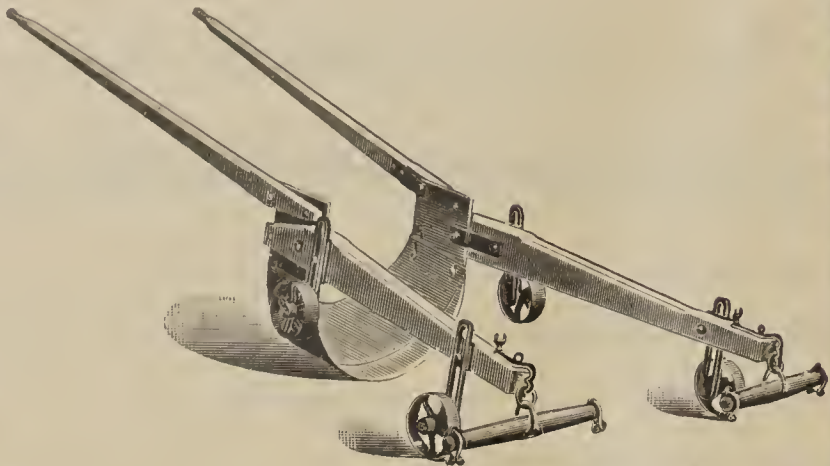
Rate, including all shipping charges from Angers to F. O. B. New York,
given on application.

When writing to Advertisers mention The National Nurseryman.

41st YEAR

L. G. BRAGG & CO.,

Offer to the trade a large stock of



Apples, 3 year buds, Pears, Plums
and Cherries, 2 year buds.

Peach Trees, a fine stock; old and new sorts all in large quantities. Car load lots a specialty.
Bragg's Common Sense Tree Digger still at the front, which we ship on trial.

L. G. BRAGG & CO.,
Kalamazoo, Mich.

ESTABLISHED 1852.

Samuel Kinsey & Co.

KINSEY, OHIO.

...For Sale a Choice Selection of...

Fruit Trees,
Shade Trees,
Small Fruits,
Hardy Shrubs,
Evergreens,
Roses, Etc.

WHOLESALE AND RETAIL.

Correspondence Solicited.

When writing to Advertisers mention The Nurseryman.

Willis Nurseries

AT OTTAWA, KAN.,

offer a general assortment of

Choice Nursery Stock to the Trade
for the Fall of 1898.

We wish also to call attention to a fine lot of
Baltimore Belle and **Queen of Prairie** Roses,
and to a fine lot of **Downing** and **Houghton**
Gooseberries, also to a fine lot of **Concord**
Grape Vines, **Early Harvest** Blackberry
plants and also to a choice lot of **Clematis**
Jackmanii. We have the best facilities for
handling stock, and give all orders our most
careful attention. We will make our best
prices to the trade, and in all of the above stock.

Send us your list before ordering elsewhere, we can save
you money. Soliciting your correspondence.

A. WILLIS, OTTAWA, KANSAS.

Peach Trees

Apple Trees

A full line of fruit and ornamental
trees. A special fine lot of *Nor-*
way Maples at reasonable prices.
Also a good stock of *Helenium*
superbum, *Yuccas*, ornamental
grasses, *Osage* 1 and 2 yr. old. A
large stock of *Am. Arbor Vitaes*
of different sizes and other *Ever-*
greens.

George Achelis,
WEST CHESTER, Chester Co, PA.

When writing to Advertisers mention The Nurseryman.

P. J. BERCKMANS.
L. A. BERCKMANS.

ESTABLISHED IN 1856.

R. C. BERCKMANS.
P. J. A. BERCKMANS, JR.

Fruitland Nurseries,

P. J. BERCKMANS, Prop.,

AUGUSTA - GA.

Over One Acre under glass.

350 Acres in Nursery Stock.

Our Trees and Plants

Have been fully tested in every section of the United States during the past 40 years. The stock now growing is up to the usual past high grade, all of thrifty growth, no old rubbish, and free from scale or disease.

Fruit Department.

Apples, Cherries, Figs, Pears, (an extra fine lot of 100,000 standard 2 and 3 years, largely of Kieffer), Paper Shell Pecans, Plums (Japan) on Marianna, English Walnuts, Grape Vines, etc. **Peach Trees** in ear load lots.

EVERBEARING PEACH

A valuable novelty now offered for the first time.

Ornamental Department.

150,000 Amoor Privet—Unsurpassed as an evergreen hedge plant.
50,000 Citrus Trifoliata—Japan Hardy Lemon; best defensive hedge plant, stands 15 degrees below zero.

150,000 Roses—Field grown, including 30,000 Marchael Niel budded upon Manetti, 3 to 5 feet.

Two acres in Canna.

Azaleas (home grown).

Broad leaved Evergreens, etc., etc., Biota Aurea Nana, Cedrus Deodora, Retinosporas and other rare coniferæ.

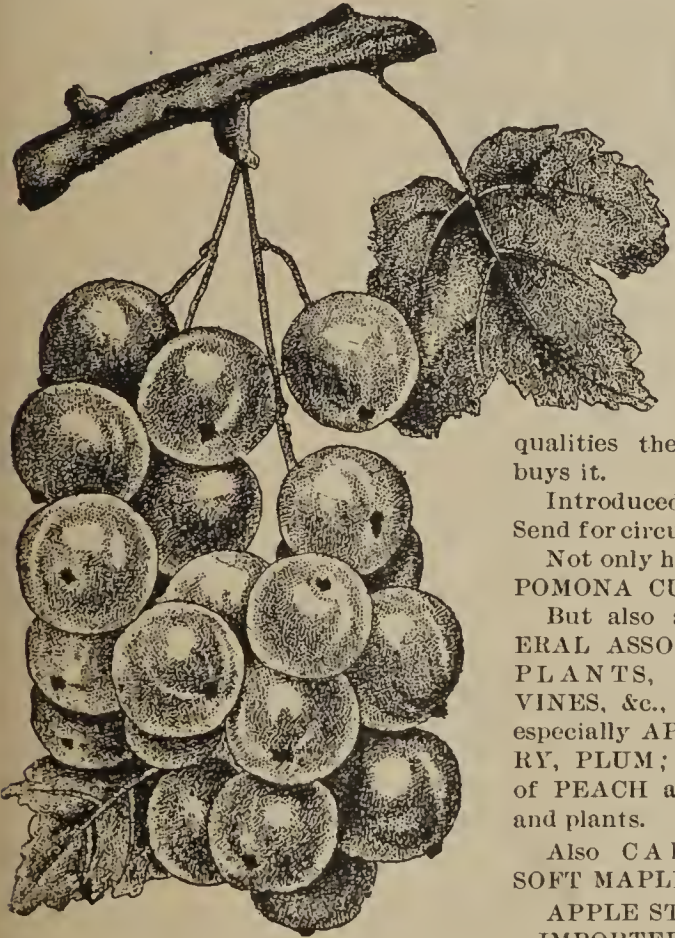
Greenhouse Department.

100,000 Palms—(An especially fine lot of Latanias, Phoenix, Pandanus and Cocos Weddelliana.)

Ficus, Decorative Plants, Crotons, Bedding Plants, 10,000 Camphor Trees, Sub-Tropical fruits, etc.

Send for trade list and descriptive Catalogue.

THE POMONA CURRANT.



The BEST SPECIALTY for the AGENTS for 1897 and 1898.

WHY? Because it is the best MONEY MAKER for the people to plant.

It is BEST in QUALITY.

Its returns come in the *quickest* and *surest*.

These being the qualities the planter is after, he buys it.

Introduced and for sale by us. Send for circulars, plates, terms, &c.

Not only have we a good stock of POMONA CURRANTS,

But also a COMPLETE GENERAL ASSORTMENT of TREES, PLANTS, ORNAMENTALS, VINES, &c., in CAR-LOAD LOTS, especially APPLE, PEAR, CHERRY, PLUM; with good assortment of PEACH and other fruit trees and plants.

Also CAROLINA POPLAR, SOFT MAPLE, ELM, &c.

APPLE STOCKS.

IMPORTED FRENCH PEARS

MAHALEB, MYROBOLAN and QUINCE stocks.

SEE TRADE LIST.

ORDER SPADES EARLY.

A limited quantity of Natural PEACH PITTS to offer.

Address,

ALBERTSON & HOBBS,

BRIDGEPORT, MARION CO., INDIANA,

When writing to Advertisers mention The Nurseryman.

Bargains in....

* HIGH GRADE STOCK

SPECIALTIES IN FRUIT.

APPLES. Sutton Beauty and Walker Beauty.

ST'D PEARS. Beurre Bosc and Easter Beurre.

CHERRIES. Gov. Wood and Montmorency.

PLUMS. Empire, Wickson and Tennant Prune.

RASPBERRIES. Columbian and Turner.

GOOSEBERRIES, CURRANTS.

SPECIALTIES IN ORNAMENTAL

Cut Leaf Birch, Horse Chestnut, Norway Maples, Sugar Maples,

Lindens, Magnolias, Rhododendrons, Ampelopsis Veitchii,

Tree Roses, Bignonia, Herb Pæonias,

Clematis.

DEALERS' COMPLETE LISTS RECEIVE SPECIAL ATTENTION.

TRADE LIST ON APPLICATION.

W. & T. SMITH CO.,

GENEVA NURSERY,

GENEVA, N. Y.

PEACH TREES

at BAIRD'S Nurseries
by the 1000 or CAR
LOAD.

We grow trees for quality rather than quantity. Our customers say they give good satisfaction. If you want good trees, true to name, lower than such stock can be grown at a profit, write us how many and varieties wanted. We shall not continue this sort of business indefinitely,

ALSO

Peach and Japan Plum Buds in large assortment.

Send list for prices to

D. BAIRD & SON, BAIRD, N. J.

FOR SALE

100,000 2-year old Apple Seedlings.

Address . .

STEPHEN HOYTS SONS, NEW CANAAN, CONN.

**J. RICE & SONS, WILLIAM STREET
NURSERIES, . . .**

.. WHOLESALE GROWERS OF ..

Apple, Standard and Dwarf Pears, Cherries, Quince, Plums, European and Japan Currants, Peaches, Ornamental Shrubs, Roses, Etc.

Special low prices on European Plums, Standard and Dwarf Pears. Correspondence solicited.

J. Rice & Sons, GENEVA, N. Y.

When writing to Advertisers mention The Nurseryman.

October Purple Plum

Mr. Luther Burbank's latest, and he says best production. The fruit is one of the most attractive, as well as the best of all the Japan Plums. The color is reddish purple with a beautiful purple bloom. Form round. Size large; some specimens sent us measuring over seven inches in circumference. It is a late variety as its name indicates. The tree is an erect handsome grower, forming an upright head like that of the Abundance. It is sure to have a large sale. We offer to the trade for this Fall a limited number of one year old trees. Prices given on application. No buds sold this season.

Address **Stephen Hoyt's Sons**, New Canaan, Conn.

GRAPE

ALL OLD AND NEW VARIETIES.

Immense Stock,
Warranted True.

QUALITY UNSURPASSED.

Send list of wants for prices.

An extra fine stock of CURRANTS at very low prices, including the valuable new WILDER.

Also DOWNING GOOSEBERRIES, very cheap. Other small fruits.

T. S. HUBBARD CO.,
FREDONIA, N. Y.

VINES

Of my own growing { 2000 Bismarck Apple.
1000 Hale Plum.
5000 Snow Ball.
2000 Altheas, Totus Albus and Jeanne D'Arc.
3000 Dogwood—variegated leaf.

Imported Seedlings, Tree Roses, Rhododendrons, Industry Gooseberry, etc., of superior quality:

Hiram T. Jones, Union Co. Nurseries, Elizabeth, N. J.

The Sparta Nurseries

have to offer their Usual stock of dry baled Moss, both bulap and wired bales, and of the finest quality on the market. Also a full line of small fruit plants, high bush Cranberry, Juneberry and Huckleberry included. Ask for prices and terms.

Z. K. JEWETT & CO., Sparta, Wis.

ESTABLISHED 1866 BY BLAIR BROS.

R. H. BLAIR & CO.,

Office N. W. Cor. 11th and Walnut Sts., - Kansas City, Mo.

Proprietors of the LEES SUMMIT NURSERIES.

Apple and Peach, new and leading varieties by the ear lots. Russian and American Apricots and native Plums by ear lots. Pears, Cherries and a general assortment of Small Fruits and Ornamentals.

We are not surpassed by any Nursery in the west, in number of acres or quality of stock. We have the only practical box-clamp in use. Price reduced.

[ESTABLISHED 1876.]

ALLEN L. WOOD,

Rochester, N. Y.

EXTRA FINE

PLANTS

At . .
Wholesale.

The Largest Stock of
CURRANTS, GOOSEBERRIES,

RASPBERRIES, BLACK-

BERRIES, Etc.

in the United States. . . .

I will enter your order for ten plants, up to a carload, of any varieties. It will pay you to get my prices.

When writing to advertisers mention The National Nurseryman.

Stakes for

NURSERY ROWS,
PACKING YARDS,
ROSE TREES, LILLIES,
and Everything in that Line
for the Nurserymen.

GREEN ELM CLEATS AND CORNERS.

J. E. CURTISS, BARRE CENTER, NEW YORK.

Honey Locust Hedge,

Most Ornamental for
Parks and Lawns.

Strong and handsome for farm fencing. Hardy for cold climates.

Easy seller at good profits. Put your agents on to it. Plates of this beautiful Hedge to sell from, furnished cheap. OSAGE ORANGE HEDGE and plates also

WRITE FOR PRICES AND TRY THEM.

A. E. WINDSOR, - - - - HAVANA, ILLS.

Ornamental

LARGE

SMALL

TREES

FLOWERING SHRUBS in great variety. Descriptive Catalogue and Price-List free.

SAMUEL C. MOON, Morrisville, Bucks County, Pa.

NURSEYRYMEN

Should read this, I have just what you want. Always in stock, a nice clean article of dry baled SPHAGNUM MOSS. No delay or freight charges from branch roads. Orders for less than large car load shipped the first day received.

L. G. THOMPSON,

Write me for easy terms and prices.

TOMAH, WIS.

Wabash R. R.

Offers Unexcelled Service
to the

WEST.

4 Daily Vestibuled Trains,
BUFFALO—to—CHICAGO.

2 Daily Vestibuled Trains,
BUFFALO to
ST. LOUIS, KANSAS CITY and OMAHA.

FREE RECLINING CHAIR CARS.
WAGNER SLEEPING CARS.
WABASH DINING CARS.

Full information regarding rates, etc., cheerfully given.
...Address,

O. S. CRANE, G. P. & T. A.,
St. Louis, Mo.

JAMES GASS,
N. Y. S. P. A.,
287 Main, Buffalo, N. Y.

R. F. KELLEY,
G. A. P. D.,
287 Main, Buffalo, N. Y.

When writing to Advertisers mention The National Nurseryman.

WOOD LABELS

THE AMERICAN FLAG

floats over Santiago but the **Label Question** will undoubtedly demand attention before Cuban independence is assured.

We have a large stock in readiness from which shipments will be made with our customary *promptness* and the *quality* of our product is unexcelled. Order early and avoid the rush.

Samples and Prices Cheerfully Furnished on Application.

BENJAMIN CHASE, . . DERRY, NEW HAMPSHIRE.

12 MILL STREET.

APPLE
STD. PEAR
CHERRY
PEACH, Etc.

The Very Finest
OUR PRICES WILL SUIT YOU, WRITE US FOR THEM.
THE MONROE NURSERIES,
I. E. Ilgenfritz's Sons,
MONROE,
MICH.

Phoenix Nursery Co., Established 1852.
600 Acres.
13 Greenhouses.

SUCCESSORS TO
SIDNEY TUTTLE & CO

Nurserymen and Florists.

Eastern agents for Rossney Pear, the best and handsomest pear yet introduced. We have an unusually fine stock of Irish Juniper, 2 to 3 ft. and 3 to 4 ft., also a splendid stock Hybrid Perpetual, Moss, Climbing, Hybrid Tea and Ever-blooming Roses, all on own roots. Correspondence solicited.

Send list of wants for prices.
P. O. BOX 625.

BLOOMINGTON, ILL.

Hardy Herbaceous Plants Phlox, Iris, . . .
Paeonies, Pyrethrum

and the best general collection of other Hardy Plants and Rare Shrubs in America. Wholesale Lists upon application.

THE READING NURSERY,

Established 1854.

Jacob W. Manning, Reading, Mas

High Grade Nursery Stock for Spring of '91

Apples, Standard and Dwarf Pears, Cherries, Plums, Quinces,
Cut-Leaf Weeping Birch, Purple-Leaf Birch, Silver Maple,
Elms, Catalpa, Black Walnut and Butternut.

Write for Special Prices.

JAY WOOD, KNOWLESVILLE, N. Y.

SHIP

YOUR APPLES, PEACHES, PEARS, and
Fruits and Vegetables to Samuel Whitton, Comm
sion Merchant, corner City and Green Streets, Utic
N. Y. Write for quotations. Reference, Seco
National Bank, Bradstreet's Mercantile Agency.

Samuel Whitton, Utica, N. Y.

F. & F. NURSERIES,
SPRINGFIELD, NEW JERSEY

SURPLUS OF

PEACH, PLUM, CURRANTS,
POPLARS, AND SHADE TREES,
PRIVET; SHRUBBERY, EVERGREENS, ROSES

Apple,
Peach,
Standard Pears,
Plum,
Apricots,
Grapes,
Shade Trees,
Evergreens,
Shrubs,

HEADQUARTERS FOR NURSERY STOCK.
Baltimore and Richmond Nurseries,
BALTIMORE, MD.
FRANKLIN DAVIS NURSERY CO.
50 YEARS. Tennessee Natural Peach Pits and selected Smock. 1000 ACRES.
LOW PRICES ON PEACH TREES FOR EARLY ORDERS.

Strawberries,
Nut Trees,
Japan Pear Seedlings,
Gooseberries,
Roses,
Raffia,
General Supplies,
&c., &c.,
&c.

APPLE
TREES

Two Years, 5-7 Feet. Northern Sorts.

ABUNDANCE AND . . .
. . . WILLARD PLUM

Two Years, 5-7 feet. Prices Low.

F.W. WATSON & CO.

TOPEKA, Kans.

When writing to Advertisers mention The National Nurseryman.

Fairmount Nurseries

TROY, OHIO.

For Fall and Spring trade we have an exceptionally
fine stock of

Apple, Std. Pear,
Plum, Dwf. Pear,
Cherry, Peach,
Quince, Grape,
Apricot, Currants,
Gooseberry, Evergreens
and Ornamentals.

HEADQUARTERS FOR

Apple Seedlings

which will be extra fine, and can be shipped either from Troy, Ohio,
or Topeka, Kansas.

Favor us with a list of your wants, and we believe we can quote
prices that will suit you.

GEO. PETERS & CO.

TROY, OHIO.

When writing to Advertisers mention The National Nurseryman.



41TH YEAR.
SPAULDING GROWN
TREES & PLANTS

Large assortment, select sorts, Fruit Trees, Fruit Plants, Shade and Ornamental Trees, Evergreens, Roses, Shrubs, Vines, Bulbs, etc.

Write for Catalogues
Spaulding N. & O. Co.
SPAULDING, ILL.

SPECIAL CLEARING SALE

OF
**KIEFFER, GARBER,
KOONCE,**

Clapps, Flemish, Buffum,
E. Harvest, Duchess, Lawson,
Seckel, Etc., Etc.

GLOVE PRUNED

Smooth Bodies, and Heads to be proud of.

Write or See Us.

Peach and Plum Trees • • •

FOR FALL 1898 AND SPRING 1899 DELIVERY.

All desirable leading old and new varieties of Peaches here in fruiting orchards. Have the new **Triumph**, **Greensboro** and **Sneed** fruiting. Buds can be supplied in season at low rates. Large stock of **Plum** trees, all on Plum roots, one and two year. Buds in season from either nurseries or orchard trees. Have all the leading Japanese varieties, **Abundance**, **Burbank**, **Chabot**, **Satsuma**, **Willard** and others. Also in good supply the new **Red June** and **Wickson**. Have the usual supply of **Asparagus Roots** to offer. Two and three years old, strong.

ALEXANDER PULLEN,

Milford Nurseries.

MILFORD, DEL.

WANTED!

To buy a Nursery or a controlling interest in the arid West. Must move from present location on account of poor health. Address with all particulars

J. H. CAMPBELL, Care NATIONAL NURSEYMAN.

The Rochester Star Nurseries,

Offer for Fall of '98 and Spring '99
a fine Assortment of

Standard and Dwarf Apples, Crabs,
Standard and Dwarf Pears, Cherries,
Plums, Peaches, Quinces,
Currants, Shaffer's Raspberries,
Downing Gooseberries, Rhubarb.
Cut Leaf Weeping Birch, Catalpa,
Silver Maple, Horse Chestnut,
Weeping Mountain Ash,
Double Flowering Peach,
Kilmarnock Willow,
Carolina and Lombardy Poplars.
Norway Spruce, Double Flowering Almond,
Double Flowering Plum, Purple Lilac, Spireas.

Send your want list to us before placing your order. We will please you not only in price and quality of stock, but also with satisfactory dealings in every respect.

THOMAS W. BOWMAN & SON,
ROCHESTER, N. Y.

*California Privet, Evergreens, Maples
and Ornamental Trees.*

Large trees for immediate effect.

M. F. TIGER, Patchogue, L. I., New York.

High Grade Trees

Established 1853. 600 Acres.

Our stock of **Ornamental Trees** in variety, quantity and quality, exceeds all previous years. **Shrubbery** by the thousand, pruned and transplanted, embracing everything of value. Our great specialty, **Standard Shrubs**, is finer than last season. Give us a trial order for them.

The **Fruit Department** is fully up to the requirements of the trade in every line. Carload lots a specialty.

HOOPEs, BRO. & THOMAS,

Maple Avenue Nurseries.

WEST CHESTER, PA.

GRAPE VINES

All kinds of small fruits. Extra fine stock of root cutting Blackberry Plants. Our Grapevines will grade heavy. **Satisfaction guaranteed.** No price list this Fall. Send list of your wants for special Fall prices.

North Collins,
New York.

Eugene Willett & Son.

When Writing to Advertisers mention The National Nurseryman.

1865.

1898.

JOHN CHARLTON & SONS'

UNIVERSITY AVENUE NURSERIES

ROCHESTER, N. Y.

offers for fall of 1898 and spring of 1899, a full line of Fruit and Ornamental Trees, Cut Leaf Weeping Birch, Fine Trees, all sizes, Flowering Shrubs, Roses, including Penzance's Sweet Briars, Crimson Ramblers, Marchioness of Londonderry, etc., etc. Clematis in variety, out door strong plants.

Fringe Leaf and other Paeonies, Transplanted Golden Glows, etc.

We offer 60,000 Peach Trees, free from curl and yellows in leading sorts.

*Campbell's Early and other grape vines,
Iceberg and other blackberries,
Bismarck Apples, fine trees.*

Dowing and other Gooseberries and nursery stock. Currants, the finest lot we ever offered, at low rates.

JOHN CHARLTON & SONS.

FRUIT PLATES

Vredenburg & Company,

AND NURSERY SUPPLIES. ROCHESTER, N. Y.

APPLE AND CHERRY TREES

In large stock and complete assortment. Also a full line of Pear, Peach, Quince and small fruits. A large supply of very fine

ORNAMENTAL TREES

including Norway Maples, Catalpa, Carolina, Lindens, Elms, etc. Also Shrubs and Vines. All stock inspected and certified. Send us your "want lists."

DAYTON STAR NURSERIES, Dayton, Ohio.

Strawberry Plants

For August and September Planting.

Our stock, which comprises all the leading new and older varieties, is the largest and finest we have ever grown, and our prices are right. Let us figure on your wants at this season.

We have also to offer

500,000 Raspberry Plants. 500,000 Blackberry Plants.
50,000 Dewberry Plants.

150,000 Currants, 2-1. 75,000 Gooseberry, 2-1.

Our stock is up-to-date in new varieties as well as the leading standard sorts. Price List Free.

W. N. SCARFF, New Carlisle, O.

When writing to Advertisers mention The Nurseryman.

T. R. WATSON,

Old Colony Nurseries

1840 * * 1898.

PLYMOUTH, MASS., U. S. A.

A Surplus Stock
of

HERBACEOUS PLANTS

Althea Rosea, (Hollyhocks), Asclepias Tuberosa,
Convallaria Majalis (Lily of the Vally, Sod)
Coreopsis Lanceolata, Gypsophila Paniculata,
Hemerocalis Dumortieri, Flava and Fulva,
Hibiscus Moscheutos, Liatris Scariosa,
Lobelia Cardinalis, Peonies Mixed.

50 Named Varieties

Platycodon or Wahlenbergia.

Low Prices Given on Application.

WHY NOT offer the ROSSNEY PEAR

in your Fall and Spring catalogues and through your Agents. It is the finest thing in a Pear, both in tree and fruit, ever offered to the public. If interested write us at once. Originated and grown only by us.

PIONEER NURSERIES COMPANY,

P. O. Box 1406. SALT LAKE CITY, UTAH.

Eastern Agents: Phoenix Nursery Co., P. O. Box 625. Bloomington, Ill.

Oak Hill Nurseries.

I have a large supply of

Peach, Plum, Apricot, Evergreens, Shade Trees, Etc.

It will pay you to get my prices.

C. L. LONGSDORF, FLORADALE, PA.

E. T. DICKINSON, CHATENAY, SEINE, FRANCE.

Grower and Exporter,
has to offer

FRENCH NURSERY STOCKS,

Fruit Tree Seedlings and Ornamentals.

Pear, Apple, Plum and Cherry, and Angers Quince Cuttings. All grown specially for the American trade.

PEAR AND CRAB APPLE SEED.

The most complete assortment of Ornamental Stocks, Trees and Shrubs. Orders solicited and booked now at low rates.

E. T. DICKINSON, 1 Broadway, NEW YORK.

When writing to Advertisers mention The Nurseryman.

Remember the Maine!

Article that you will need before the shipping season opens, without a supply of Labels you will experience a great deal of trouble. Drop a postal to the

Dayton Fruit Tree Label Co.,

giving approximate estimate that you will need, and they will submit samples and quote you prices that will surprise you.

Wood Labels.

2 1/2 INCH.

Printed and Wired
with
Iron, Brass or Copper
Wire.



Wood Labels.

3 1/2 INCH.

Blank Painted and
Wired with
Iron, Brass or Copper
Wire.

THE 3 1-2 inch blank Labels are very smooth, perfectly wired, and you will not be annoyed by the wire breaking at the notch, as you do with a great many cheaper and inferior Labels that are on the market.

The style of packing the 2 1-2 inch printed Labels is a convenience never before attained in the handling of Tree Labels, a trial order will convince you.

Our painted Labels are entirely coated (and not one side) with a superior quality of paint, which preserves the wood and prevents the Label from turning dark.

Your Correspondence Solicited.

Harrison's Nurseries.



OUR BUDDED LIST includes
the best varieties in cultiva-
tion.

Over One Million Trees

Send your list of wants at once.

Alexander.....	2,075	Fitzgerald.....	19,782	Reeve's Favorite.....	120,130
Brandywine.....	1,610	Ford's L. White.....	4,042	Stephens R. Ripe.....	26,565
Bilyeau's October.....	6,275	Geary's Holdon.....	5,275	Smock.....	28,955
Bernard's Early.....	1,650	Greensboro.....	16,581	Salway.....	22,325
Bokara No. 3.....	5,315	Gold Drop.....	4,580	Snow's Orange.....	2,235
Bray's R. Ripe.....	6,710	Globe.....	33,920	Stump the World.....	49,309
Carman.....	3,080	Hill's Chili.....	2,140	Sneed.....	11,700
Crawford's Late.....	98,702	Hale's Early.....	4,010	Thurber.....	780
Crawford's Early.....	12,012	Kalamazoo.....	4,468	Triumph.....	21,566
Conet's So. Early.....	7,303	Lemon Free.....	5,550	Troths Early.....	2,195
Champion.....	6,650	Lewis.....	3,910	Wonderful.....	5,605
Chair's Choice.....	99,387	Lorentz.....	2,170	Wheatland.....	31,861
Crosby.....	4,077	Levy's Late.....	2,120	Wager.....	2,455
Connetieut.....	3,935	Moore's Fav.....	6,272	Willet.....	3,777
Chinese Cling.....	2,600	McIntoch.....	2,320	Walker's Variegated Free....	9,920
Elberta.....	282,604	Morris' White.....	6,514	Wilkins Cling.....	2,835
Emma.....	2,080	Mt. Rose.....	58,148	White Heath Cling.....	3,300
Early Rivers.....	7,131	Mt. Rose Ripe.....	1,000	Waddell... ..	1,300
Eureka.....	4,919	New Prolife.....	6,070	Water Loo.....	1,115
Early Michigan.....	6,706	Old Mixon Cling.....	1,880	Yellow St. John.....	9,650
Fox Seedling.....	28,758	Old Mixon Free.....	53,377		
Foster.....	7,042	Prise.....	1,345		
				Total Amount.....	1,203,573

June Budded Peach Trees

will be grown on contract at a reasonable price. We have the buds and seedlings from natural seed and can do the work.

We are free from SCALE and YELLOWS and invite your personal inspection.

Plum Trees

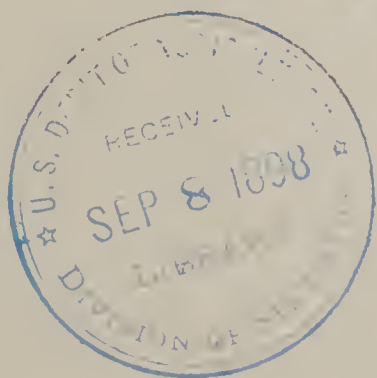
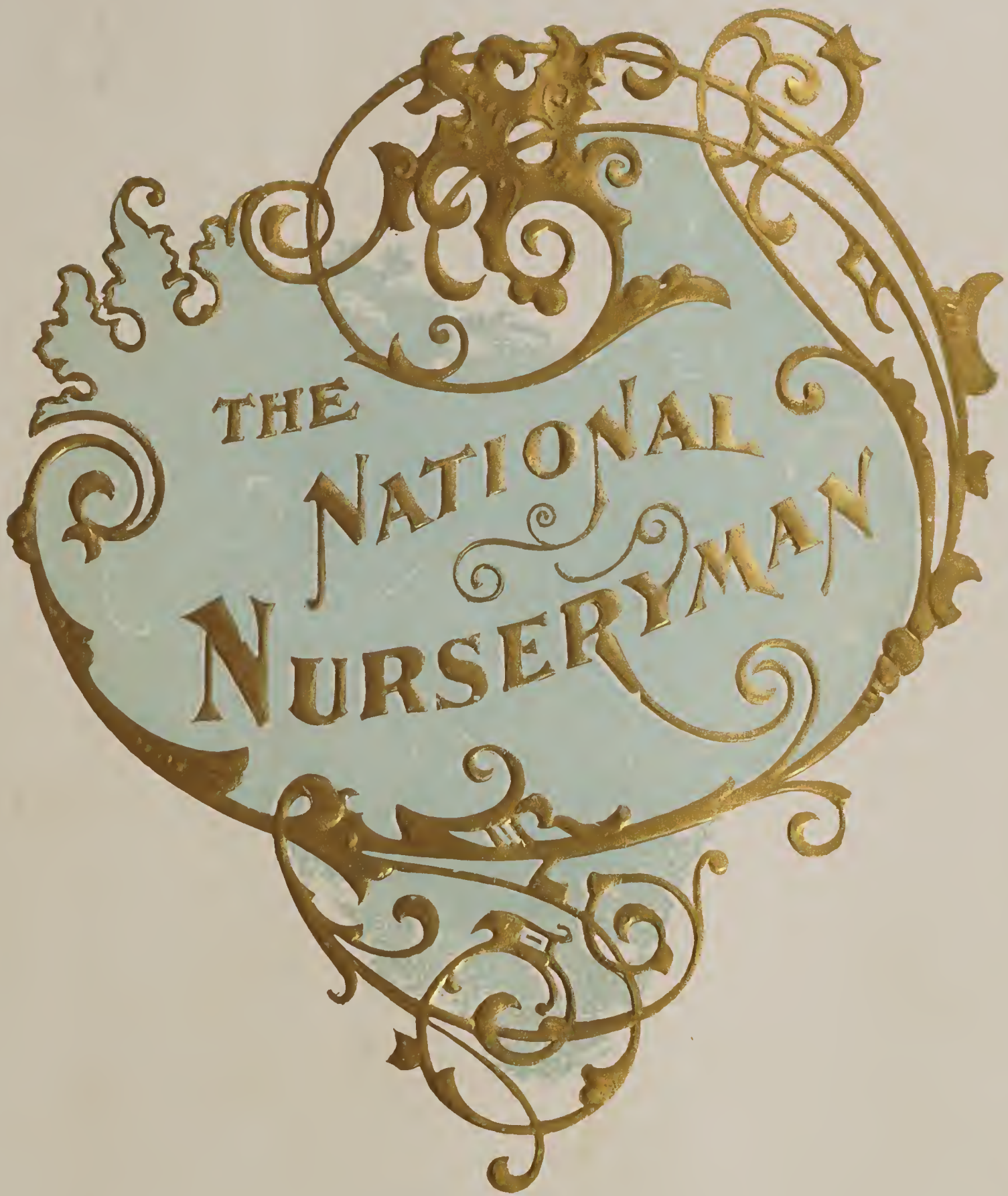
on Plum Root and on Peach Root. . . .

Buds

of all varieties of Peaches given in this list at lowest possible price.

J. G. Harrison & Sons Nurseries,

BERLIN, - MD.



September, 1898.

“White Winged Peace”

Is brooding over the scenes of the late sanguinary conflicts,
but the

LABEL WARFARE

WAXETH HOTTER AND HOTTER,

Although our stock has already sustained heavy losses, we are still able to withstand the demands of prospective purchasers and can guarantee our usual prompt shipment. Do not wait too long, however, for your own peace of mind, as transportation companies are often delinquent in the time of greatest need.

Samples and Prices Cheerfully Furnished on Application.

BENJAMIN CHASE, . . **DERRY, NEW HAMPSHIRE.**
12 MILL STREET.



PAINESVILLE NURSERIES.

Located on the shore of Lake Erie, thirty miles east of Cleveland, grow as healthy and hardy nursery stock as can be found between the oceans, consisting of one of the most complete assortments of

Fruit and Ornamental Trees,
Small Fruits, Nut Bearing
Trees, Grape Vines, Shrubs,

Roses, Hardy Herbaceous
Plants, Climbing Vines, Bulbs
and Greenhouse Plants.

GROW MOST LARGELY.— Standard and Dwarf Pear, embracing all the leading sorts. European and Japan Plum, an extraordinary fine stock.

PEACH.— The product of a million budding, grown on the bank of Lake Erie, two miles removed from any peach orchards, and guaranteed free from peach borers, the great enemy to successful peach culture. Have our usual amount of other fruit trees, Apple, Cherry, Quince, Apricot, Nectarine, Mulberry, Persimmon.

SMALL FRUITS AND GRAPE VINES.— A full assortment, especially heavy in Gooseberries, Currants and root cutting Blackberry plants.

Headquarters for Ornamental Trees and Shrubs, including all the popular sorts.

WEeping TREES.— Particularly heavy in Teas Weeping Mulberry, the most satisfactory of all the decidedly drooping trees, also in Kilmarnock and Wisconsin Weeping Willows, as nice, clean stock as can be found, besides good supply of New American Willows, Camperdown, Elm, Mountain and European Weeping Ash, Cut Leaved and Young's Weeping Birches, Weeping Birch, Cornus, etc.

ROSES.— Nursery Grown our specialty and we flatter ourselves that we place a budded rose on the market, unexcelled by any grown in Europe or America, which are less liable to sucker than those grown by any other concern, roses that will make a more vigorous growth and continue more floriferous than those grown on own roots, still we can supply more or less on own roots when they are preferred.

OUR GREENHOUSE DEPARTMENT.— Consists of 32 houses, filled to overflowing with Roses, Palms, Araucarias, Ficus, Begonias, Dracenas, Pandanus, Ferns, etc. To provide for our increasing trade in this line, we are building 12 additional greenhouses, to be heated with two fifty-five horse-power boilers.

HOLLAND BULBS.— Have large stocks ordered from best growers that surely will please customers.

Correspondence Solicited. . . .

. . . Trade Lists and Catalogues Free.

The Storrs & Harrison Co.,

PAINESVILLE, OHIO.



"The most complete Nurseries on the American Continent."

THE MOUNT .. HOPE .. NURSERIES,

ROCHESTER, N. Y.

ELLWANGER & BARRY, Proprietors.

Established over fifty years ago, and still under the same management.

The largest and most complete collections of General Nursery Stock ever offered; the most approved varieties of FRUIT TREES, new and old, Grape Vines, Currants, Raspberries, Gooseberries, etc.

Superb collections of ORNAMENTAL TREES and SHRUBS, both deciduous and evergreen. HARDY ROSES, HARDY HERBACEOUS PLANTS, HERBACEOUS PÆONIES. HARDY PHLOXES.

Fine stock of Gooseberries and Currants.

Wholesale catalogue mailed free on request.

FOR FALL '98 AND SPRING '99.

20,000 Kenyon Red Raspberry,
20,000 Turner,
300,000 Elm, 1 year,
25,000 Silver Maple, 3 to 4 ft.,
75,000 Berberry, 1, 2 and 3 years old,
5,000 Picea Pungens, transplanted, 18 to 24 in.
10,000 " " " 12 to 18 in.
25,000 " " " 8 to 12 in.
50,000 " " seedlings, 2 years, 2 to 4 in.
50,000 Ponderosa Pine, " " 4 to 6 in.
1,000 Paeony, Double Rose.
1,000 Paeony, Double Chinese.
500 P. L. Birch, 5 to 6 ft.
20,000 American and European Mt. Ash, transplanted, $\frac{1}{2}$, $\frac{2}{3}$, $\frac{3}{4}$ and 4 to 5 ft.
10,000 Horse Chestnut, transplanted, $\frac{2}{3}$ and $\frac{3}{4}$ ft.

❖ GARDNER & SON, Osage, Iowa.

Apple, Peach, Cherry, Plum and Shade Trees

JAPAN PEAR,

Apple and Russian Mulberry Seedling.

Hydrangea, Althea and other Shrubs.

NORTH TOPEKA NURSERIES,

A. L. BROOKE, Proprietor,

NORTH TOPEKA, KANS.

When writing to advertisers mention The National Nurseryman.

Jackson & Perkins, NEWARK, New York.

GROWERS OF CHOICE NURSERY STOCK.

NEW ROSES.—Clio, Mrs. Sherman, Crawford, Marchioness of Londonderry, Margaret Dickson, Lord Penzance's Hybrid Sweet Briars, Crimson, Pink, White and Yellow Ramblers, also a fine assortment of older kinds.

CLEMATIS.—Largest stock in the world; full assortment.

OTHER CLIMBING PLANTS.—Ampelopsis, Veitchii, Chinese Matrimony Vine, Dutchman's Pipe, Honeysuckles, Wisterias, etc.

SHRUBS.—Exochorda Grandiflora, Halesia Tetraptera, Variegated-leaved Dogwood, Hydrangeas, Snowballs, Lilacs, Spireas, Deutzias, Weigellias, etc.

CURRANTS AND GOOSEBERRIES.—Fine quality of stock and low prices sold us out clean upon these last season in spite of the glut and we are prepared to offer some attractive bargains this year.

CHERRY. PLUM. PEAR. QUINCE. PEACH.

SPECIALTIES FOR 1898-1899.

Aglaia or Yellow Rambler, the only hardy Yellow Climbing Rose.

CUMBERLAND, (Trade Mark) the largest Black Raspberry known.

ICEBERG, Luther Burbank's new White Blackberry.

Free Plates for Agents Use will be furnished to all reliable nurserymen who will handle these novelties, depending upon us for their supply of plants.

Handsome Descriptive Circulars will also be supplied at less than cost to us.

LOUIS LEROY'S NURSERIES

(Established 1795.)

ANGERS, (M. & L.) FRANCE.

GROWER AND WHOLESALE EXPORTE OF

FRUIT, FOREST and ORNAMENTAL STOCK

Camellias, Clematis, Coniferæ, Lilacs, Magnolias, Rhododendrons, Roses, Shrubs, Etc.

Prices, catalogues and all other information can be obtained by addressing

AUG. RHOTERT,

SOLE AGENT,

26 Barclay Street, (P. O. Box 2250) New York.

W. T. HOOD & CO.,

Old Dominion Nurseries

RICHMOND, VA.

Will have a full stock for the trade of fall of '98 and spring of '99 of

Apple, Peach, Standard Pear, Cherry and Ornamentals.

500 bushels of natural Peach Pits, crop of '97.

WANTED

—To sell an interest in the Old Dominion Nurseries to a thorough practical nurseryman.

W. T. HOOD.

Smiths & Powell Co.,

Syracuse, N. Y.,

offer a large and choice stock of

BUDDED APPLES,
STANDARD AND DWARF PEARS,
PLUMS, CHERRIES, PEACHES,
ROSES, ORNAMENTAL TREES,
SHRUBS AND VINES.

Our stock is of superior quality and most carefully graded. Send us your want list or come and see our stock. We issue no trade price list, but will make low prices by letter.

Do not forget the OLD RELIABLE SYRACUSE NURSERIES.

When writing to Advertisers mention The National Nurseryman.

P. J. BERCKMANS.
L. A. BERCKMANS.

ESTABLISHED IN 1856.

R. C. BERCKMANS.
P. J. A. BERCKMANS, JR.

FRUITLAND NURSERIES

P. J. BERCKMANS CO., (Incorporated.)
AUGUSTA, GA.

Over ONE ACRE under glass 360 ACRES in Nursery Stock.

The stock now growing is up to the usual past high grade, all of thrifty growth, no old rubbish, and free from scale or disease.

Fruit Department.

Apples, Cherries, Figs, Pears, (an extra fine lot of 100,000 standard 2 and 3 years, largely of Kieffer), Paper Shell Pecans, Plums (Japan) on Marianna, English Walnuts, Grape Vines, etc. Special prices for car load lots.

Everbearing Peach.

A valuable novelty. Specimens of fruit showing three stages of maturity were exhibited at the meeting of the Georgia State Horticultural Society at Americus, Ga., Aug. 3d, 1898, and attracted much attention.

Ornamental Department.

150,000 Amoor Privet—Unsurpassed as an evergreen hedge plant. 50,000 Citrus Trifoliata—Japan Hardy Lemon; best defensive hedge plant, stands 15 degrees below zero.

150,000 Roses—Field grown; including 10,000 Marcehal Niel budded upon Manetti, 3-5 feet. Two Acres in Canna.

Biota Aurea Nana.

Best of all the dwarf Biotas; a perfect gem. Specimens were on exhibition at the Nurseryman's Association at Omaha. We have a stock of 14,000 plants for fall delivery; prices low. Broad Leaved Evergreens, Cedrus Deodora, Retinosporas, and other rare conifers.

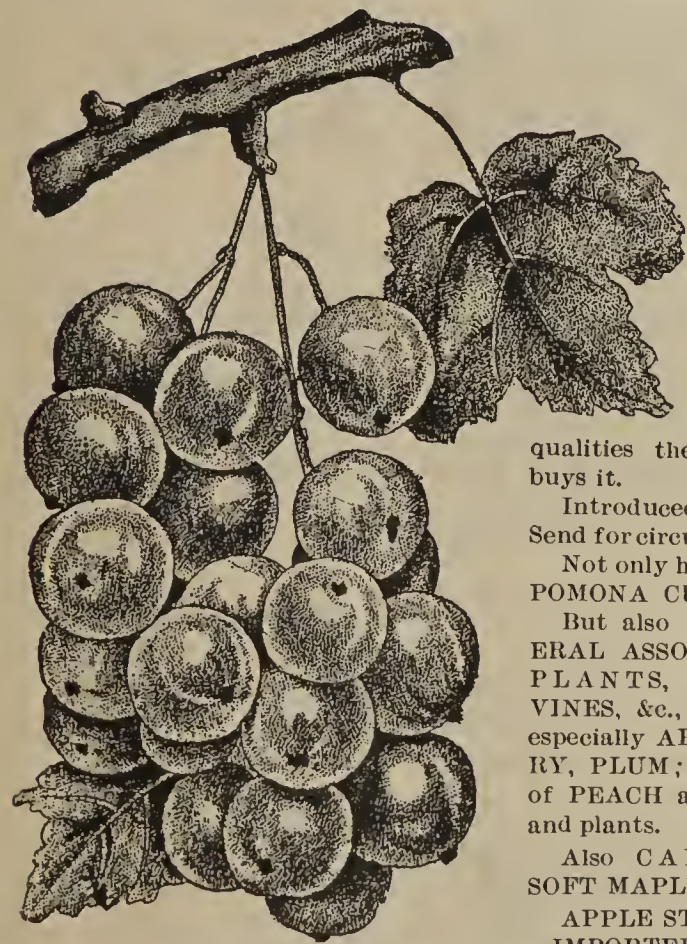
Greenhouse Department.

100,000 Palms—An especially fine lot of Latanias, Phoenix, Pandanus and Kentias.

Ficus, Decorative Plants, Crotons, Bedding Plants, 15,000 Camphor Trees, Sub-Tropical Fruits, etc.

Send for trade list and descriptive catalogue.

THE POMONA CURRANT.



The BEST SPECIALTY for the AGENTS for 1897 and 1898.

WHY? Because it is the best MONEY MAKER for the people to plant.

It is BEST in QUALITY.

Its returns come in the quickest and surest.

These being the qualities the planter is after, he buys it.

Introduced and for sale by us. Send for circulars, plates, terms, &c.

Not only have we a good stock of POMONA CURRANTS,

But also a COMPLETE GENERAL ASSORTMENT OF TREES, PLANTS, ORNAMENTALS, VINES, &c., in CAR-LOAD LOTS, especially APPLE, PEAR, CHERRY, PLUM; with good assortment of PEACH and other fruit trees and plants.

Also CAROLINA POPLAR SOFT MAPLE, ELM, &c.

APPLE STOCKS.

IMPORTED FRENCH PEARS

MAHALEB, MYROBOLAN and QUINCE stocks.

SEE TRADE LIST.

ORDER SPADES EARLY.

A limited quantity of Natural PEACH PITS to offer.

Address, ALBERTSON & HOBBS,
BRIDGEPORT, MARION CO., INDIANA.

When writing to Advertisers mention The Nurseryman.

THE

Geneva Nursery

Established in 1846.

Headquarters for :

ORNAMENTAL TREES—Birch, Elms, Horse Chestnut, Norway and Sugar Maple, Lindens, Poplars, Magnolias, EVERGREENS.

Superb Collection of :

SHRUBS—Upright, Climbing and Standard.

ROSES—Hardy Dwarf, Tea, Climbing, Rambler, Tree.

RHODODENDRONS — Ponticum, Catawbiense, Named Hybrids.

PÆONIAS - Large Assortment, Named Varieties.

DAHLIAS—New Cactus, Large Flowering, Ponpon.

full Assortment in :

Apples, Pears, Plums, Cherries and Quinces, CURRANTS, GOOSEBERRIES. RASPBERRIES.

We give special attention to Dealers' complete lists.
Fall trade list on application.

W. & T. Smith Co. GENEVA,
NEW YORK.

PEACH TREES

at BAIRD'S Nurseries
by the 1000 or CAR
LOAD.

We grow trees for quality rather than quantity. Our customers say they give good satisfaction. If you want good trees, true to name, lower than such stock can be grown at a profit, write us how many and varieties wanted. We shall not continue this sort of business indefinitely,

ALSO

Peach and Japan Plum Buds in large assortment.

Send list for prices to

D. BAIRD & SON, BAIRD, N. J.

FOR SALE

100,000 2-year old Apple Seedlings.

Address . .

STEPHEN HOYTS SONS, NEW CANAAN, CONN.

J. RICE & SONS, WILLIAM STREET
NURSERIES, . . .

. . WHOLESALE GROWERS OF . .

Apple, Standard and Dwarf Pears, Cherries, Quince, Plums, European and Japan Currants, Peaches, Ornamental Shrubs, Roses, Etc.

Special low prices on European Plums, Standard and Dwarf Pears. Correspondence solicited.

J. Rice & Sons, GENEVA, N. Y.

When writing to Advertisers mention The Nurseryman.

October Purple Plum

Mr. Luther Burbank's latest, and he says best production. The fruit is one of the most attractive, as well as the best of all the Japan Plums. The color is reddish purple with a beautiful purple bloom. Form round. Size large; some specimens sent us measuring over seven inches in circumference. It is a late variety as its name indicates. The tree is an erect handsome grower, forming an upright head like that of the Abundance. It is sure to have a large sale. We offer to the trade for this Fall a limited number of one year old trees. Prices given on application. No buds sold this season.

200,000 Apple Trees from three to five years old.

Address **Stephen Hoyt's Sons, New Canaan, Conn.**

GRAPE

ALL OLD AND NEW VARIETIES.

Immense Stock,
Warranted True.
QUALITY UNSURPASSED.

Send list of wants for prices.

An extra fine stock of CURRANTS at very low prices, including the valuable new WILDER.

Also DOWNING GOOSEBERRIES, very cheap. Other small fruits.

T. S. HUBBARD CO.,
FREDONIA, N. Y.

VINES

Of my own
growing

2000 Bismarck Apple.
1000 Hale Plum.
5000 Snow Ball.
2000 Altheas, Totus Albus and Jeanne D'Arc.
3000 Dogwood—variegated leaf.

Imported Seedlings, Tree Roses, Rhododendrons, Industry Gooseberry, etc., of superior quality:

Hiram T. Jones, Union Co. Nurseries, Elizabeth, N. J.

The Sparta Nurseries

have to offer their Usual stock of dry baled Moss, both burlap and wired bales, and of the finest quality on the market. Also a full line of small fruit plants, high bush Cranberry, Juneberry and Huckleberry included. Ask for prices and terms.

Z. K. JEWETT & CO., Sparta, Wis.

ESTABLISHED 1866 BY BLAIR BROS.

R. H. BLAIR & CO.,

Office N. W. Cor. 11th and Walnut Sts., - Kansas City, Mo.

Proprietors of the LEES SUMMIT NURSERIES.

Apple and Peach, new and leading varieties by the car lots. Russian and American Apricots and native Plums by car lots. Pears, Cherries and a general assortment of Small Fruits and Ornamentals.

We are not surpassed by any Nursery in the west, in number of acres or quality of stock. We have the only practical box-clamp in use. Price reduced.

[ESTABLISHED 1876.]

ALLEN L. WOOD,

Rochester, N. Y.

EXTRA FINE

PLANTS

At . .
Wholesale.

The Largest Stock of
CURRANTS, GOOSEBERRIES,

RASPBERRIES, BLACK-

BERRIES, Etc.

in the United States. . . .

I will enter your order for ten plants, up to a carload, of any varieties. It will pay you to get my prices.

When writing to advertisers mention The National Nurseryman.

Stakes for

NURSERY ROWS,
PACKING YARDS,
ROSE TREES, LILLIES,
and Everything in that Line
for the Nurserymen.

GREEN ELM CLEATS AND CORNERS.

J. E. CURTISS, BARRE CENTER, NEW YORK.

Honey Locust Hedge,

Most Ornamental for
Parks and Lawns.

Strong and handsome for farm fencing. Hardy for cold climates.

Easy seller at good profits. Put your agents on to it. Plates of this beautiful Hedge to sell from, furnished cheap. OSAGE ORANGE HEDGE and plates also.

WRITE FOR PRICES AND TRY THEM.

A. E. WINDSOR, - - - HAVANA, ILLS.

Ornamental

LARGE

SMALL

TREES

FLOWERING SHRUBS in great variety. Descriptive Catalogue and Price-List free.

SAMUEL C. MOON, Morrisville, Bucks County, Pa.

NURSEYMEN

Should read this, I have just what you want. Always in stock, a nice clean article of dry baled SPHAGNUM MOSS. No delay or freight charges from branch roads. Orders for less than large car load shipped the first day received.

L. G. THOMPSON,

Write me for easy terms and prices.

TOMAH, WIS.

Wabash R. R.

Offers Unexcelled Service
to the WEST.

4 Daily Vestibuled Trains,
BUFFALO—to—CHICAGO.

2 Daily Vestibuled Trains,
BUFFALO to—
ST. LOUIS, KANSAS CITY and OMAHA.

FREE RECLINING CHAIR CARS.
WAGNER SLEEPING CARS.
WABASH DINING CARS.

Full information regarding rates, etc., cheerfully given.
...Address,

O. S. CRANE, G. P. & T. A.,
St. Louis, Mo.

JAMES GASS, R. F. KELLEY,
N. Y. S. P. A., G. A. P. D.,
287 Main, Buffalo, N. Y. 287 Main, Buffalo, N. Y.

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SEND US A LIST OF YOUR WANTS



41TH YEAR.
SPAULDING GROWN
TREES & PLANTS

Large assortment, select sorts, Fruit Trees, Fruit Plants, Shade and Ornamental Trees, Evergreens, Roses, Shrubs, Vines, Bulbs, etc.

Write for Catalogues.

Spaulding N. & O. Co.
SPAULDING, ILL.

SPECIAL (Get O-U-R) Prices. CLEARING SALE

OF

Kiefer, Garber, Koonce

Clapps, Flemish, Buffum,
E. Harvest, Duchess, Lawson,
Seckel, Etc., Etc.

GLOVE PRUNED

Smooth Bodies, and Heads to be proud of.

Get our prices if you want a complete line of

FRUIT TREE STOCKS.

Get our prices on
CORDAGE AND BURLAPS.

Peach and Plum Trees . . .

FOR FALL 1898 AND SPRING 1899 DELIVERY.

All desirable leading old and new varieties of Peaches here in fruiting orchards. Have the new **Triumph**, **Greensboro** and **Sneed** fruiting. Buds can be supplied in season at low rates. Large stock of **Plum** trees, all on Plum roots, one and two year. Buds in season from either nurseries or orchard trees. Have all the leading Japanese varieties, **Abundance**, **Burbank**, **Chabot**, **Satsuma**, **Willard** and others. Also in good supply the new **Red June** and **Wickson**. Have the usual supply of **Asparagus Roots** to offer. Two and three years old, strong.

ALEXANDER PULLEN,

Milford Nurseries.

MILFORD, DEL.

WANTED.

We wish to employ for the winter eight experienced men for grafting, packing and planting.

Address,

The Griffing Bros. Co., Nurserymen,
Macclenny, Fla.

The Rochester Star Nurseries,

Offer for Fall of '98 and Spring '99
a fine Assortment of

Standard and Dwarf Apples, Crabs,
Standard and Dwarf Pears, Cherries,
Plums, Peaches, Quinces,
Currants, Shaffer's Raspberries,
Downing Gooseberries, Rhubarb.
Cut Leaf Weeping Birch, Catalpa,
Silver Maple, Horse Chestnut,
Weeping Mountain Ash,
Kilmarnock Willow,
Carolina and Lombardy Poplars.
Norway Spruce, Double Flowering Plum,
Purple Lilac, Spireas.

Send your want list to us before placing your order. We will please you not only in price and quality of stock, but also with satisfactory dealings in every respect.

Long Distance Telephone in our Office.
Use the Nurserymen's Telegraphic Code in Telegraphing.

THOMAS W. BOWMAN & SON,
1860. ROCHESTER, N. Y. 1898.

*California Privet, Evergreens, Maples
and Ornamental Trees.*

Large trees for immediate effect.

M. F. TIGER, Patchogue, L. I., New York.

High Grade Trees

Established 1853. 600 Acres.

Our stock of **Ornamental Trees** in variety, quantity and quality, exceeds all previous years. **Shrubbery** by the thousand, pruned and transplanted, embracing everything of value. Our great specialty, **Standard Shrubs**, is finer than last season. Give us a trial order for them.

The **Fruit Department** is fully up to the requirements of the trade in every line. Carload lots a specialty.

HOOPEES, BRO. & THOMAS,

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WEST CHESTER, PA.

GRAPE VINES

All kinds of small fruits. Extra fine stock of root cutting Blackberry Plants. Our Grapevines will grade heavy. **Satisfaction guaranteed.** No price list this Fall. Send list of your wants for special Fall prices.

North Collins,
New York.

Eugene Willett & Son.

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APPLE
 STD. PEAR
 CHERRY
 PEACH, Etc.
 The Very Finest
 OUR PRICES WILL SUIT YOU, WRITE US FOR THEM.
 THE MONROE NURSERIES,
 I. E. Ilgenfritz's Sons,
 MONROE,
 MICH.

Phoenix Nursery Co., Established 1852.
 600 Acres.
 13 Greenhouses.
 SUCCESSORS TO
 SIDNEY TUTTLE & CO. Nurserymen and Florists.
 Eastern agents for Rossney Pear, the best and handsomest pear yet introduced. We have an unusually fine stock of Irish Juniper, 2 to 3 ft. and 3 to 4 ft., also a splendid stock Hybrid Perpetual, Moss, Climbing, Hybrid Tea and Ever-blooming Roses, all on own roots. Correspondence solicited.
 Send list of wants for prices.
 P. O. BOX 625. **BLOOMINGTON, ILL.**

Hardy Herbaceous Plants — Pyrethrums,
 and the best general collection of other Hardy Plants and Rare
 Shrubs in America. Wholesale Lists on application.
THE READING NURSERY,
 Established 1854. Jacob W. Mallory, Reading, Mass.

High Grade Nursery Stock for Spring of '98.
 Apples, Standard and Dwarf Pears, Cherries, Plums, Quinces,
 Cut-Leaf Weeping Birch, Purple-Leaf Birch, Silver Maple,
 Elms, Catalpa, Black Walnut and Butternut.
 Write for Special Prices.

JAY WOOD, KNOWLESVILLE, N. Y.

SITUATION WANTED — Nursery office man of 34.
 Bookkeeper and Stenographer,
 15 years experience, wholesale,
 retail, operating agents and collecting. Reasonable salary. References.
 Address. "CLERK,"
 Care NATIONAL NURSERYMAN.

F. & F. NURSERIES,
 SPRINGFIELD, NEW JERSEY.
 SURPLUS OF
 PEACH, PLUM, CURRANTS,
 POPLARS, AND SHADE TREES,
 PRIVET; SHRUBBERY, EVERGREENS, ROSES.

Apple, Peach, Standard Pears, Plum, Apricots, Grapes, Shade Trees, Evergreens, Shrubs,	HEADQUARTERS FOR NURSERY STOCK. Baltimore and Richmond Nurseries, BALTIMORE, MD. FRANKLIN DAVIS NURSERY CO. 50 YEARS. Tennessee Natural Peach Pits and selected Smock. 1000 ACRES. LOW PRICES ON PEACH TREES FOR EARLY ORDERS.	Strawberries, Nut Trees, Japan Pear Seedlings, Gooseberries, Roses, Raffia, General Supplies, &c., &c., &c.
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APPLE
TREES
 Two Years, 5-7 Feet. Northern Sorts.
ABUNDANCE AND . . .
. . . WILLARD PLUM
 Two Years, 5-7 feet. Prices Low.
F.W. WATSON & CO.
 TOPEKA, Kans.

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 TRADE MARK.
SUZUKI & IIDA
 No 11 Broadway, No. 3 Nakamura,
 NEW YORK. YOKOHAMA.
 CONSOLIDATED WITH THE
YOKOHAMA NURSERY CO.
 The largest concern in the Nursery Trade in Japan.
 Invite correspondence interested in Japanese Nursery
 Stock, Bulbs, &c.
Safe Arrival of Goods Guaranteed.

The Shenandoah Nurseries

OFFER IN CAR LOTS:

*Apple, Cherry Peach, Plum
and Ornamental Trees.*

NORTHERN-GROWN APPLE SEEDLINGS,
ALL GRADES.

Osage Orange Plants—One and Two Year.

LARGE GENERAL STOCK.

D. S. LAKE, Proprietor,

SHENANDOAH, IOWA.

Write for Prices.

WANTED TO EXCHANGE—Dwarf Pears, Standard Pears or Champion Quince for Sour Cherries. If you are in need of any of the above stock and have Sour Cherries in surplus let me hear from you.
D. H. PATTY, Nurseryman, GENEVA, N. Y.

Marianna Plum and many other fruit stocks will be scarce. Get our quotations at once. Fruit Seeds, Marnetti Rose and Raffia.
Thos. Meehan & Sons,
Germantown, Penna.

A FINE STOCK OF
Yellow Rambler Roses, Bismarck Apple Trees
(GENUINE STOCK),
At prices that will sell them. Can offer a few hundred H. P. Roses on own roots.
C. L. YATES, Rochester, N. Y.

BUDS OF DELAWARE PEACH

CAMPBELL'S EARLY GRAPE.

INSIST ON OUR SEALS AND THUS INSURE AGAINST IMPOSITION.

The Largest Stock of other First-Class Grape Vines. Extra Fine Stock of Gooseberries, Currants, Blackberries, &c. Let us Know your Wants.

GEO. S. JOSSELYN, Fredonia, N. Y.

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ESTABLISHED IN 1852.

MUNSON HILL NURSERIES, Falls Church, Va.

A General Assortment of Nursery Stock for Sale.

50,000 FIRST-CLASS PEACH TREES one year from bud, all budded on natural Tennessee piths, and free from yellows and San Jose scale. Prices on application.

D. O. MUNSON, Proprietor.

HOW TO FIND CUSTOMERS.

A specific and carefully prepared list of 1,500 names and addresses of suburban residents of Philadelphia who annually buy Trees, Plants, Seeds, Bulbs and Garden and Greenhouse Supplies to a greater or less extent, can be had at a very moderate rate on application to

F. S. DENISON,

615 Walnut Street,

PHILADELPHIA, PA.

SPECIALTIES:
**PIN OAKS AND
HEMLOCKS.**

ANDORRA NURSERIES.

WM. WARNER HARPER, Proprietor,
CHESTNUT HILL, Philadelphia, Pa.

WE HAVE A FINE LOT OF
SNYDER AND ERIE BLACKBERRY PLANTS
ROOT CUTTINGS,

Which we wish to exchange for a general line of nursery stock, and invite correspondence to that end.

A. E. ATWATER & SON, Cheshire, Conn.

W. H. SALTER, ROCHESTER, N. Y.

WILL MAKE SPECIAL PRICES ON

CURRANTS. Fay's, Cherry, White Grape and Lee's Prolific.

GOOSEBERRIES—Houghton, Smith and Downing.

Will also make surplus prices on Clematis Virginiana, fine strong plants. Moderate rates on Roses, Large Flowered Clematis, (field grown) Hydrangea P. G., Marlboro Raspberry, (transplants) Carnations and Chrysanthemums from pots, etc.

SURPLUS STOCK. Fall, '98, and Spring, '99.
CLEAN AND BRIGHT ELBERTA PEACH TREES.

and thirty other varieties, grown from natural seed on new land, single 100 or by carload lots, at low prices. Norway Spruce, fine bushy trees, 3 ft., 4 ft., 5 ft., 6 ft., 7 ft. White Spruce, 3 ft., 4 ft. Am. Arborvitae, 2 ft., 3 ft., 3½ ft., 4 ft. and 5 ft. Norway Maples, transplanted 18 inches, 2 ft., 3 ft. Norway Maples, stocky, 6 to 7 ft., 8 to 9 ft., and 10 feet. Carolina Poplars, 6 ft. to 28 ft., ½ inch to 6 inch caliper. California Privet, one and two years. Osage Orange, two years and some one year. MALVERN NURSERIES.

JOSIAH A. ROBERTS, Prop., Malvern, Penna.

\$25. Per 1000. Trees and plants of new and old sorts in assortment at the lowest possible price. Catalogue Free.
MYER & SON,
BRIDGEVILLE, DEL.

JOHN CHARLTON & SONS'

UNIVERSITY AVENUE NURSERIES

ROCHESTER, N. Y.

offers for fall of 1898 and spring of 1899, a full line of Fruit and Ornamental Trees, Cut Leaf Weeping Birch, Fine Trees, all sizes, Flowering Shrubs, Roses, including Penzance's Sweet Briars, Crimson Ramblers, Marchioness of Londonderry, etc., etc. Clematis in variety, out door strong plants.

Fringe Leaf and other Paeonies, Transplanted Golden Glows, etc.

We offer 60,000 Peach Trees, free from curl and yellows in leading sorts.

Campbell's Early and other grape vines,

Iceberg and other blackberries,

Bismarck Apples, fine trees.

Dowing and other Gooseberries and nursery stock. Currants, the finest lot we ever offered, at low rates.

JOHN CHARLTON & SONS.

FRUIT PLATES

Vredenburg &
Company,

AND NURSERY SUPPLIES.

ROCHESTER, N. Y.

APPLE AND CHERRY TREES

In large stock and complete assortment. Also a full line of Pear, Peach, Quince and small fruits. A large supply of very fine

ORNAMENTAL TREES

including Norway Maples, Catalpa, Carolina, Lindens, Elms, etc. Also Shrubs and Vines. All stock inspected and certified. Send us your "want lists."

DAYTON STAR NURSERIES, Dayton, Ohio.

Strawberry Plants

For August and September Planting.

Our stock, which comprises all the leading new and older varieties, is the largest and finest we have ever grown, and our prices are right. Let us figure on your wants at this season.

We have also to offer

500,000 Raspberry Plants.

500,000 Blackberry Plants.

50,000 Dewberry Plants.

150,000 Currants, 2-1.

75,000 Gooseberry, 2-1.

Our stock is up-to-date in new varieties as well as the leading standard sorts. Price List Free.

W. N. SCARFF, New Carlisle, O.

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T. R. WATSON,

Old Colony Nurseries

1840 * * 1898.

PLYMOUTH, MASS., U. S. A.

A Surplus Stock
of

HERBACEOUS PLANTS

Althea Rosea, (Hollyhocks), Asclepias Tuberosa,

Convallaria Majalis (Lily of the Vally, Sod)

Coreopsis Lanceolata, Gypsophila Paniculata,

Hemerocalis Dumortieri, Flava and Fulva,

Hibiscus Moscheutos, Liatris Scariosa.

Lobelia Cardinalis, Peonies Mixed.

50 Named Varieties

Platycodon or Wahlenbergia.

Low Prices Given on Application.

WHY NOT offer the ROSSNEY PEAR

in your Fall and Spring catalogues and through your Agents. It is the finest thing in a Pear, both in tree and fruit, ever offered to the public. If interested write us at once. Originated and grown only by us.

PIONEER NURSERIES COMPANY,

P. O. Box 1406. SALT LAKE CITY, UTAH.

Eastern Agents: Phoenix Nursery Co., P. O. Box 625. Bloomington, Ill.

Oak Hill Nurseries.

I have a large supply of

Peach, Plum, Apricot, Evergreens, Shade Trees, Etc.

It will pay you to get my prices.

C. L. LONGSDORF, FLORADALE, PA.

E. T. DICKINSON, CHATENAY, SEINE, FRANCE.

Grower and Exporter,

has to offer

FRENCH NURSERY STOCKS,

Fruit Tree Seedlings and Ornamentals.

Pear, Apple, Plum and Cherry, and Angers Quince Cuttings. All grown specially for the American trade

PEAR AND CRAB APPLE SEED.

The most complete assortment of Ornamental Stocks, Trees and Shrubs. Orders solicited and booked now at low rates.

E. T. DICKINSON, 1 Broadway, NEW YORK.

When writing to Advertisers mention The Nurseryman.

200,000 Peach Trees, 100,000 Blackberry,
2,000,000 Strawberry Plants, 500,000 Raspberries.

Eldorado, Maxwell and Lucreiat Blackberries.

MILLER, LOUDON and
COLUMBIAN . .

TRIUMPH,
GREENSBORO and EMMA,

Raspberries.

and a full
assortment of

Wickson, Red June and Giant

Peaches

PLUMS.

. . . . AND OTHER FRUIT.

It will be to advantage of those in the trade to correspond
with us.

Our Catalogue will save you money.

MYER & SON,
BRIDGEVILLE, DELAWARE.



**1,000,000
Peach Trees**

grown on the bank of Lake
Erie, two miles from any
peach orchards and guar-
anteed free from Scale,
Borers, Yellows, etc. Large
stock of Pear, Plum,
Cherry, Quince and immense supply of Small
Fruit plants. Headquarters for Ornamental
Trees and Shrubs. A quarter of a million of

**LOW
BUDDED ROSES**

32 Greenhouses filled with Roses, Palms,
Araucarias, Ficus, Dracenas, Pandanus, etc.
Will have immense stocks of best Holland Bulbs
for fall. 45th year. 1000 acres. Correspondence
and personal inspection solicited.

THE STORRS & HARRISON CO.,
Box 36. Painesville, Ohio.

BREWER & STANNARD.

— THE —

Ottawa Star Nurseries,
OTTAWA, KANSAS.

Offer a full and complete stock of **FRUIT** and **ORNAMENTAL
TREES**, and call your attention especially to

APPLE—Well rooted ; good assortment in all grades.

PEAR—Standard and Dwarf, 2-years ; good assortment.

PLUM ON PLUM—One and 2-years ; American, Japan and Euro-
pean sorts.

PEACH—A fine lot and good assortment.

APRICOTS—Russian and American sorts.

GOOSEBERRIES—2-year ; strong plants, mostly Houghton and Down
ing.

CURRENTS—One and 2-years ; good assortment, very fine.

FOREST SEEDLINGS—Russian Mulberry, Maple, Box Elder, Black
Locust, Ash, Elm, Catalpa and Osage Hedge.

APPLE SEEDLINGS—All grades, fine healthy plants.

ORNAMENTAL TREES—Strong on Mountain Ash and Maple, 5 to 6
and 6 to 8 feet.

We have also a good assortment of Ornamental Shrubs,
Roses and Vines.

For a more complete list we refer you to our semi-annual trade
list and solicit correspondence.

When writing to Advertisers mention The National Nurseryman.

SNOWHILL NURSERIES.

Must be Sold to Clear the Land.

300,000 Peach Trees—One year from bud, in four grades.

20,000 Japan Plums—One year old.

20,000 Grape Vines—Two and three years old.

100,000 Asparagus Roots—Two and three years old.

Three Million Strawberry Plants.

Favor us with your list of wants. Our prices will surprise you.
Descriptive catalogue if requested.

W. M. PETERS SONS,
WESLEY, MD.

WANTED

A purchaser for Standard and Dwarf Pears,
Plums and Kilmarnock Willows. I have a very
handsome stock of the above, and will sell
them for less than it costs to grow them. If
you are in want of any pears, plums, or Kil-
marnocks be sure and get my prices before
placing your order.

Address **D. H. PATTY, Nurseryman, Geneva, N. Y.**

P. SEBIRE & SONS, Nurserymen,
USSY, CALVADOS, FRANCE.

A general assortment of **Fruit Tree Stocks**, such as **Apple, Pear, Myro-
bolan Plum, Mahaleb and Mazzard Cherry, Angers Quince, Small
Evergreens, Forest Trees, Ornamental Shrubs, Roses, Etc.** The largest
stock in the country. Prices very low. Packing secured. Send for quota-
tions before placing your orders elsewhere. Catalogue free. Agents for
U. S. America and Canada.

C. C. ABEL & CO., P. O. Box 920, New York.

ESTABLISHED 1780.

ANDRE LEROY NURSERIES,

Brault & Son, Directors, Angers, France,

Beg to announce to the trade that their extensive spring sowing
will enable them to supply for the Fall 1898 and Spring 1899, large
quantities of first-class, well-graded **FRUIT SEEDLINGS** at lowest
market prices, also a fine and complete variety of **ORNAMENTALS,
ROSES, SHRUBS, Etc.** Apply for special quotations to

ANDRE L. CAUSSE, Agent,

105-107 Hudson St.,

NEW YORK.

Rate, including all shipping charges from Angers to F. O. B. New York,
given on application.

When writing to Advertisers mention The National Nurseryman.

Peters & Skinner, North Topeka, Kansas.

CAPITAL NURSERIES.

Apple Seedling

*Keiffer Pear Seedling,
French Pear Seedling,
Japan Pear Seedling,
Russian Mulberry,
Box Elder and
Osage Seedling.*

Trees

*Apple, Peach, Cherry,
Plum and Apricot.*

KEIFFER, GARBER AND KOONCE PEAR.

Bechtel's Double Flowering Crab.

PETERS & SKINNER, North Topeka,
Kansas.

For Park and Street Planting.

American, Scotch and English Elm, Silver, Sugar
and Norway Maples, Carolina and Lombardy
Poplars, Horse Chestnuts, American White
Ash, Cut-Leaved Birch, Purpled Leaved Beech,
Catalpa, American and European Lindens.

Extra Size, 6 to 20 feet, 1 to 6 inches.

Heavily stocked with Kilmarnock and New Ameri-
can Willow, Camperdown Elm, Tea's Weep-
ing Mulberry, Siberian and American Arbor
Vitæ, Norway Spruce, and a great variety of
Shrubs and Roses.

Apples, Pears, Plums, Cherries, CURRANTS and
GOOSEBERRIES extensively grown. Better
stock never grew.

NELSON BOGUE

BATAVIA NURSERIES,

BATAVIA, N. Y.

When writing to Advertisers mention The Nurseryman.

"Largest Orchards and Nurseries in the State."

1846 E. SMITH & SONS, 1898

GENEVA, N. Y.

ARE OFFERING SPECIAL INDUCEMENTS

to NURSEYMEN and DEALERS on

*Standard and Dwarf Pears,
European and Japan Plums,
Sweet and Sour Cherries,
Quinces, Apples, Peaches,
Maples, Ash, Hydrangeas,
Roses, Evergreens
and Small Fruits.*

Headquarters for new varieties of fruit.
Submit a list of wants and get our price.

New!

Plums Empire, Wickson "Japan."
Peaches Fitzgerald, Triumph.

From Anywhere East

To Everywhere West

The Great Rock Island Route

IS THE BEST LINE.

The Great Cities of

Northwest—West—Southwest

Reached quickly and comfortably in up-to-date through Pullman
Sleepers and Free Reclining Chair Cars operated on fast trains.

Tourists en route to the resorts of the Rocky Mountains, to California,
the North Pacific Coast or to the

GREAT TRANS-MISSISSIPPI EXPOSITION

AT OMAHA, NEB.,

should write the undersigned for rates, folders and literature.

Chas. Kennedy, G.E.P.A., Jno. Sebastian, G.P.A.,

305 Broadway, NEW YORK.

CHICAGO, ILL.

When writing to Advertisers mention The Nurseryman.

Remember the Maine!

Article that you will need before the shipping season opens, without a supply of Labels you will experience a great deal of trouble. Drop a postal to the

Dayton Fruit Tree Label Co.,

giving approximate estimate that you will need, and they will submit samples and quote you prices that will surprise you.

Wood Labels.

2½ INCH.

Printed and Wired
with
Iron, Brass or Copper
Wire.



Wood Labels.

3½ INCH.

Blank Painted and
Wired with
Iron, Brass or Copper
Wire.

THE 3 1-2 inch blank Labels are very smooth, perfectly wired, and you will not be annoyed by the wire breaking at the notch, as you do with a great many cheaper and inferior Labels that are on the market.

The style of packing the 2 1-2 inch printed Labels is a convenience never before attained in the handling of Tree Labels, a trial order will convince you.

Our painted Labels are entirely coated (and not one side) with a superior quality of paint, which preserves the wood and prevents the Label from turning dark.

Your Correspondence Solicited.

Harrison's

Nurseries.



OUR BUDDED LIST includes
the best varieties in cultiva-
tion.

Over One Million Trees.

Send your list of wants at once.

Alexander.....	2,075
Brandywine.....	1,610
Bilyeau's October.....	6,275
Bernard's Early.....	1,650
Bokara No. 3.....	5,315
Bray's R. Ripe.....	6,710
Carman.....	3,080
Crawford's Late.....	98,702
Crawford's Early.....	12,012
Conet's So. Early.....	7,303
Champion.....	6,650
Chair's Choice.....	99,387
Crosby.....	4,077
Conneticut.....	3,935
Chinese Cling.....	2,600
Elberta.....	282,604
Emma.....	2,080
Early Rivers.....	7,131
Eureka.....	4,919
Early Michigan.....	6,706
Fox Seedling.....	28,758
Foster.....	7,042

Fitzgerald.....	19,782
Ford's L. White.....	4,042
Geary's Holdon.....	5,275
Greensboro.....	16,581
Gold Drop.....	4,580
Globe.....	33,920
Hill's Chili.....	2,140
Hale's Early.....	4,010
Kalamazoo.....	4,468
Lemon Free.....	5,550
Lewis.....	3,910
Lorentz.....	2,170
Levy's Late.....	2,120
Moore's Fav.....	6,272
McIntosh.....	2,320
Morris' White.....	6,514
Mt. Rose.....	58,148
Mt. Rose Ripe.....	1,000
New Prolific.....	6,070
Old Mixon Cling.....	1,880
Old Mixon Free.....	53,377
Prise.....	1,345

Reeve's Favorite.....	120,130
Stephens R. Ripe.....	26,565
Smock.....	28,955
Salway.....	22,325
Snow's Orange.....	2,235
Stump the World.....	49,309
Sneed.....	11,700
Thurber.....	780
Triumph.....	21,566
Troths Early.....	2,195
Wonderful.....	5,605
Wheatland.....	31,861
Wager.....	2,455
Willet.....	3,777
Walker's Variegated Free....	9,920
Wilkins Cling.....	2,835
White Heath Cling.....	3,300
Waddell.....	1,300
Water Loo.....	1,115
Yellow St. John.....	9,650

Total Amount.....1,203,573

June Budded Peach Trees

will be grown on contract at a reasonable price. We have the buds and seedlings from natural seed and can do the work.

We are free from SCALE and YELLOWS and invite your personal inspection.

Plum Trees

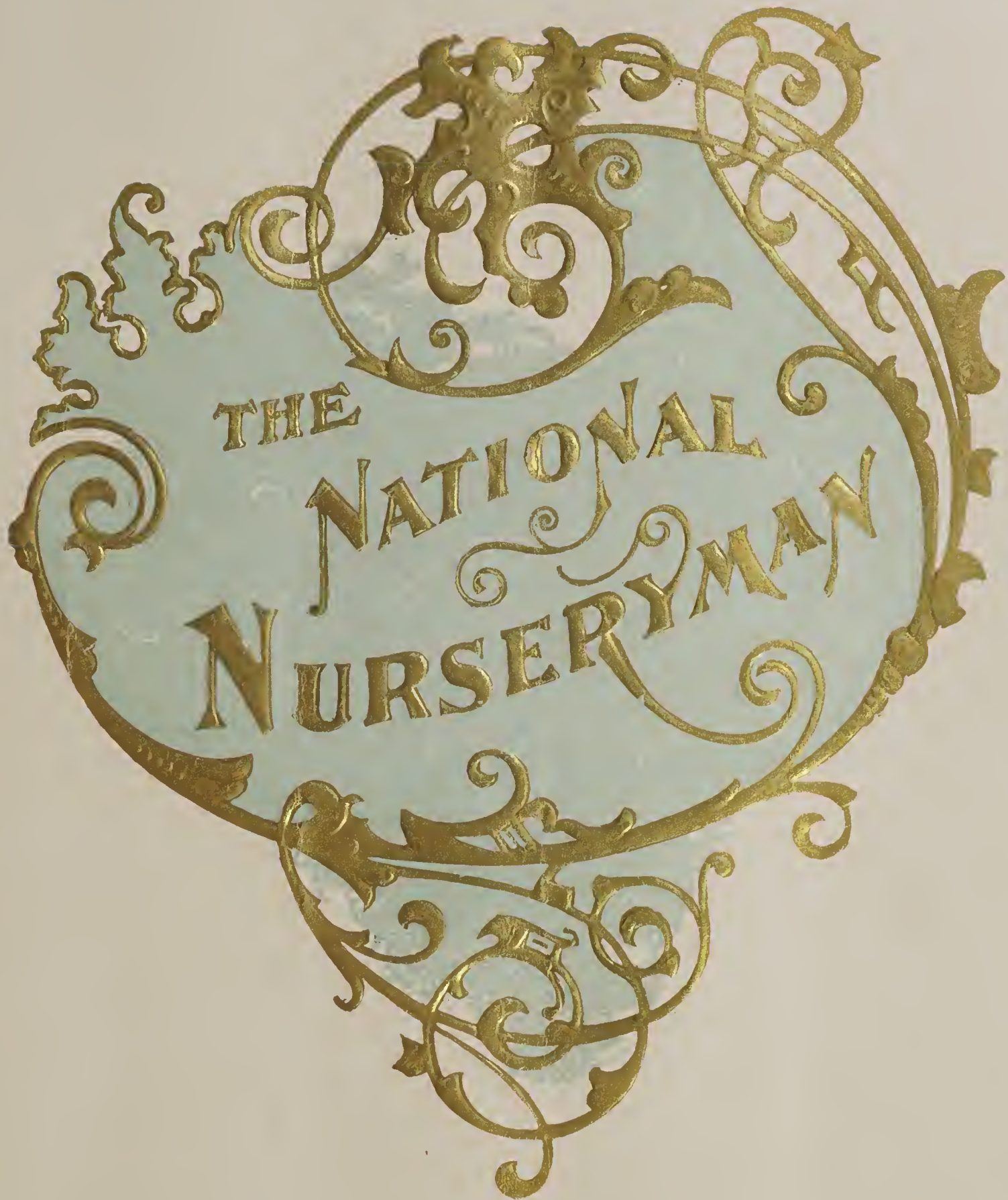
on Plum Root and on Peach Root. . . .

Buds

of all varieties of Peaches given in this list at lowest possible price.

J. G. Harrison & Sons Nurseries,

BERLIN, - MD.



October, 1898.

200,000 Peach Trees, | 100,000 Blackberry,
2,000,000 Strawberry Plants, | 500,000 Raspberries.

Eldorado, Maxwell and Lucreiat Blackberries.

MILLER, LOUDON and
COLUMBIAN . .

TRIUMPH,
GREENSBORO and EMMA,

Raspberries.

and a full
assortment of

Wickson, Red June and Giant

Peaches

PLUMS. . . . AND OTHER FRUIT.

It will be to advantage of those in the trade to correspond
with us.
Our Catalogue will save you money.

MYER & SON,

BRIDGEVILLE, DELAWARE.



**1,000,000
Peach Trees**

grown on the bank of Lake
Erie, two miles from any
peach orchards and guar-
anteed free from Scale,
Borers, Yellows, etc. Large
stock of Pear, Plum,
Cherry, Quince and immense supply of Small
Fruit plants. Headquarters for Ornamental
Trees and Shrubs. A quarter of a million of

**LOW
BUDDED ROSES**

32 Greenhouses filled with Roses, Palms,
Araucarias, Ficus, Dracenas, Pandanus, etc.
Will have immense stocks of best Holland Bulbs
for fall. 45th year. 1000 acres. Correspondence
and personal inspection solicited.

THE STORRS & HARRISON CO.,
Box 36. Painesville, Ohio.

*Apple, Peach,
Cherry, Plum,
Pear, Dwf. Pear,
Apple Seedlings,
Forest Seedlings,
Osage Hedge,
GRAPE, GOOSEBERRIES and CURRANTS,
ORNAMENTAL TREES, SHRUBS,
ROSES and VINES.*



The above are well grown, and will be up to
grade. Send us a list of your wants.

BREWER & STANNARD,
The Ottawa Star Nurseries,
OTTAWA, KANSAS.

When writing to Advertisers mention The National Nurseryman.

SNOWHILL NURSERIES.

Must be Sold to Clear the Land.

300,000 Peach Trees—One year from bud, in four grades.

20,000 Japan Plums—One year old.

20,000 Grape Vines—Two and three years old.

100,000 Asparagus Roots—Two and three years old.

Three Million Strawberry Plants.

Favor us with your list of wants. Our prices will surprise you.
Descriptive catalogue if requested.

W. M. PETERS SONS,

WESLEY, MD.

H. P. AND Climbing Roses

INCLUDING

CRIMSON and YELLOW RAMBLERS Budded and On Own Roots.

WRITE FOR PRICES.

C. L. YATES, ROCHESTER, N. Y.

P. SEBIRE & SONS, Nurserymen,

USSY, CALVADOS, FRANCE.

A general assortment of Fruit Tree Stocks, such as Apple, Pear, Myro-
bolan Plum, Mahaleb and Mazzard Cherry, Angers Quince, Small
Evergreens, Forest Trees, Ornamental Shrubs, Roses, Etc. The largest
stock in the country. Prices very low. Packing secured. Send for quota-
tions before placing your orders elsewhere. Catalogue free. Agents for
U. S. America and Canada.

C. C. ABEL & CO., P. O. Box 920, New York.

ESTABLISHED 1780.

ANDRE LEROY NURSERIES,

Brault & Son, Directors, Angers, France,

Beg to announce to the trade that their extensive spring sowing
will enable them to supply for the Fall 1898 and Spring 1899, large
quantities of first-class, well-graded **FRUIT SEEDLINGS** at lowest
market prices, also a fine and complete variety of **ORNAMENTALS,**
ROSES, SHRUBS, Etc. Apply for special quotations to

ANDRE L. CAUSSE, Agent,
105-107 Hudson St., **NEW YORK.**

Rate, including all shipping charges from Angers to F. O. B. New York,
given on application.

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PAINESVILLE NURSERIES.

Located on the shore of Lake Erie, thirty miles east of Cleveland, grow as healthy and hardy nursery stock as can be found between the oceans, consisting of one of the most complete assortments of

Fruit and Ornamental Trees,
Small Fruits, Nut Bearing
Trees, Grape Vines, Shrubs,

Roses, Hardy Herbaceous
Plants, Climbing Vines, Bulbs
and Greenhouse Plants.

GROW MOST LARGELY.— Standard and Dwarf Pear, embracing all the leading sorts. European and Japan Plum, an extraordinary fine stock.

PEACH.— The product of a million budding, grown on the bank of Lake Erie, two miles removed from any peach orchards, and guaranteed free from peach borers, the great enemy to successful peach culture. Have our usual amount of other fruit trees, Apple, Cherry, Quince, Apricot, Nectarine, Mulberry, Persimmon.

SMALL FRUITS AND GRAPE VINES.— A full assortment, especially heavy in Gooseberries, Currants and root cutting Blackberry plants.

Headquarters for Ornamental Trees and Shrubs, including all the popular sorts.

WEeping TREES.— Particularly heavy in Teas Weeping Mulberry, the most satisfactory of all the decidedly drooping trees, also in Kilmarnock and Wisconsin Weeping Willows, as nice, clean stock as can be found, besides good supply of New American Willows, Camperdown, Elm, Mountain and European Weeping Ash, Cut Leaved and Young's Weeping Birches, Weeping Birch, Cornus, etc.

ROSES.— Nursery Grown our specialty and we flatter ourselves that we place a budded rose on the market, unexcelled by any grown in Europe or America, which are less liable to sucker than those grown by any other concern, roses that will make a more vigorous growth and continue more floriferous than those grown on own roots, still we can supply more or less on own roots when they are preferred.

OUR GREENHOUSE DEPARTMENT.— Consists of 32 houses, filled to overflowing with Roses, Palms, Araucarias, Ficus, Begonias, Dracenas, Pandanus, Ferns, etc. To provide for our increasing trade in this line, we are building 12 additional greenhouses, to be heated with two fifty-five horse-power boilers.

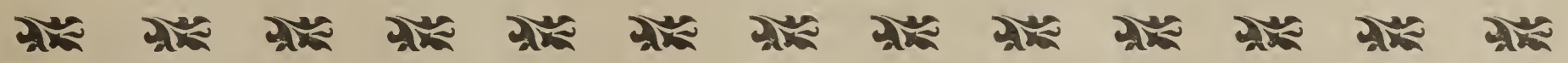
HOLLAND BULBS.— Have large stocks ordered from best growers that surely will please customers.



Correspondence Solicited. . . .
. . . Trade Lists and Catalogues Free.

The Storrs & Harrison Co.,

PAINESVILLE, OHIO.



"The most complete Nurseries on the American Continent."

THE MOUNT HOPE NURSERIES,

ROCHESTER, N. Y.

ELLWANGER & BARRY, Proprietors.

Established over fifty years ago, and still under the same management.

The largest and most complete collections of General Nursery Stock ever offered; the most approved varieties of FRUIT TREES, new and old, Grape Vines, Currants, Raspberries, Gooseberries, etc.

Superb collections of ORNAMENTAL TREES and SHRUBS, both deciduous and evergreen. HARDY ROSES, HARDY HERBACEOUS PLANTS, HERBACEOUS PÆONIES. HARDY PHLOXES.

Fine stock of Gooseberries and Currants.

Wholesale catalogue mailed free on request.

FOR FALL '98 AND SPRING '99.

20,000 Kenyon Red Raspberry,
20,000 Turner,
300,000 Elm, 1 year,
25,000 Silver Maple, 3 to 4 ft.,
75,000 Berberry, 1, 2 and 3 years old,
5,000 Picea Pungens, transplanted, 18 to 24 in.
10,000 " " " 12 to 18 in.
25,000 " " " 8 to 12 in.
50,000 " " seedlings, 2 years, 2 to 4 in.
50,000 Ponderosa Pine, " " 4 to 6 in.
1,000 Paeony, Double Rose.
1,000 Paeony, Double Chinese.
500 P. L. Birch, 5 to 6 ft.
20,000 American and European Mt. Ash, transplanted, $\frac{1}{2}$, $\frac{2}{3}$, $\frac{3}{4}$ and 4 to 5 ft.
10,000 Horse Chestnut, transplanted, $\frac{2}{3}$ and $\frac{3}{4}$ ft.

❖ GARDNER & SON, Osage, Iowa.

Apple, Peach, Cherry, Plum and Shade Trees

JAPAN PEAR,

Apple and Russian Mulberry Seedling.

Hydrangea, Althea and other Shrubs.

NORTH TOPEKA NURSERIES,

A. L. BROOKE, Proprietor,

NORTH TOPEKA, KANS.

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Jackson & Perkins, NEWARK,
New York.

GROWERS OF CHOICE NURSERY STOCK.

NEW ROSES.—Clio, Mrs. Sherman, Crawford, Marchioness of Londonderry, Margaret Dickson, Lord Penzance's Hybrid Sweet Briars, Crimson, Pink, White and Yellow Ramblers, also a fine assortment of older kinds.

CLEMATIS.—Largest stock in the world; full assortment.

OTHER CLIMBING PLANTS.—Ampelopsis, V. itchii, Chinese Matrimony Vine, Dutchman's Pipe, Honeysuckles, Wisterias, etc.

SHRUBS.—Exochorda Grandiflora, Halesia Tetraptera, Variegated-leaved Dogwood, Hydrangeas, Snowballs, Lilacs, Spiræas, Deutzias, Weigelas, etc.

CURRENTS AND GOOSEBERRIES.—Fine quality of stock and low prices sold us out clean upon these last season in spite of the glut and we are prepared to offer some attractive bargains this year.

CHERRY. PLUM. PEAR. QUINCE. PEACH.

SPECIALTIES FOR 1898-1899.

Aglaia or Yellow Rambler, the only hardy Yellow Climbing Rose.

CUMBERLAND, (Trade Mark) the largest Black Raspberry known.

ICEBERG, Luther Burbank's new White Blackberry.

Free Plates for Agents Use will be furnished to all reliable nurserymen who will handle these novelties, depending upon us for their supply of plants.

Handsome Descriptive Circulars will also be supplied at less than cost to us.

LOUIS LEROY'S
NURSERIES

(Established 1795.)

ANGERS, (M. & L.) FRANCE.

GROWER AND WHOLESALE EXPORTE OF

FRUIT, FOREST and ORNAMENTAL STOCK

Camellias, Clematis, Coniferæ, Lilacs, Magnolias, Rhododendrons, Roses, Shrubs, Etc.

Prices, catalogues and all other information can be obtained by addressing

AUG. RHOTERT,

SOLE AGENT,

26 Barclay Street, (P. O. Box 2250) New York.

W. T. HOOD & CO.,

Old Dominion Nurseries

RICHMOND, VA.

Will have a full stock for the trade of fall of '98
and spring of '99 of

Apple, Peach, Standard Pear, Cherry and Ornamentals.

500 bushels of natural Peach Pits, crop of '97.

WANTED—To sell an interest in the Old Dominion Nurseries to
a thorough practical nurseryman. W. T. HOOD.

Smiths & Powell Co.,

Syracuse, N. Y.,

offer a large and choice stock of

BUDDED APPLES,
STANDARD AND DWARF PEARS,
PLUMS, CHERRIES, PEACHES,
ROSES, ORNAMENTAL TREES,
SHRUBS AND VINES.

Our stock is of superior quality and most carefully graded. Send us your want list or come and see our stock. We issue no trade price list, but will make low prices by letter.

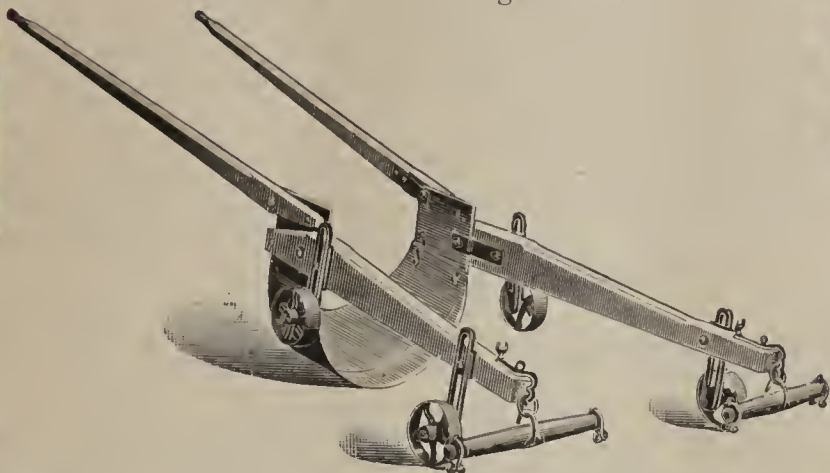
Do not forget the OLD RELIABLE SYRACUSE NURSERIES.

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41st YEAR

L. G. BRAGG & CO.,

Offer to the trade a large stock of



Apples, 3 year buds, Pears, Plums
and Cherries, 2 year buds.

Peach Trees, a fine stock; old and new sorts all in large quantities. Car load lots a specialty.
Bragg's Common Sense Tree Digger still at the front, which we ship on trial.

L. G. BRAGG & CO.,
Kalamazoo, Mich.

ESTABLISHED 1852.

Samuel Kinsey & Co.

KINSEY, OHIO.

...For Sale a Choice Selection of...

Fruit Trees,
Shade Trees,
Small Fruits,
Hardy Shrubs.
Evergreens,
Roses, Etc.

WHOLESALE AND RETAIL.

Correspondence Solicited.

When writing to Advertisers mention The Nurseryman.

Willis Nurseries

AT OTTAWA, KAN.,

offer a general assortment of

Choice Nursery Stock to the Trade
for the Fall of 1898.

We wish also to call attention to a fine lot of
Baltimore Belle and Queen of Prairie Roses,
and to a fine lot of Downing and Houghton
Gooseberries, also to a fine lot of Concord
Grape Vines, Early Harvest Blackberry
plants and also to a choice lot of Clematis
Jackmanii. We have the best facilities for
handling stock, and give all orders our most
careful attention. We will make our best
prices to the trade, and in all of the above stock.

Send us your list before ordering elsewhere, we can save
you money. Soliciting your correspondence.

A. WILLIS, OTTAWA, KANSAS.

Peach Trees

Apple Trees

A full line of fruit and ornamental
trees. A special fine lot of Nor-
way Maples at reasonable prices.
Also a good stock of Helenium
superbum, Yuccas, ornamental
grasses, Osage 1 and 2 yr. old. A
large stock of Am. Arbor Vitae
of different sizes and other Ever-
greens.

George Achelis,
WEST CHESTER, Chester Co., PA.

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P. J. BERCKMANS.
L. A. BERCKMANS.

ESTABLISHED IN 1856.

R. C. BERCKMANS.
P. J. A. BERCKMANS, JR.

FRUITLAND NURSERIES

P. J. BERCKMANS CO., (Incorporated.)
AUGUSTA, GA.

Over ONE ACRE under glass 360 ACRES in Nursery Stock.

The stock now growing is up to the usual past high grade, all of thrifty growth, no old rubbish, and free from scale or disease.

Fruit Department.

Apples, Cherries, Figs, Pears, (an extra fine lot of 100,000 standard 2 and 3 years, largely of Kieffer), Paper Shell Pecans, Plums (Japan) on Marianna, English Walnuts, Grape Vines, etc. Special prices for car load lots.

Everbearing Peach.

A valuable novelty. Specimens of fruit showing three stages of maturity were exhibited at the meeting of the Georgia State Horticultural Society at Americus, Ga., Aug. 3d, 1898, and attracted much attention.

Ornamental Department.

150,000 Amoor Privet—Unsurpassed as an evergreen hedge plant.
50,000 Citrus Trifoliata—Japan Hardy Lemon; best defensive hedge plant, stands 15 degrees below zero.
150,000 Roses—Field grown; including 10,000 Marechal Niel budded upon Manetti, 3-5 feet.
Two Acres in Canna.

Biota Aurea Nana.

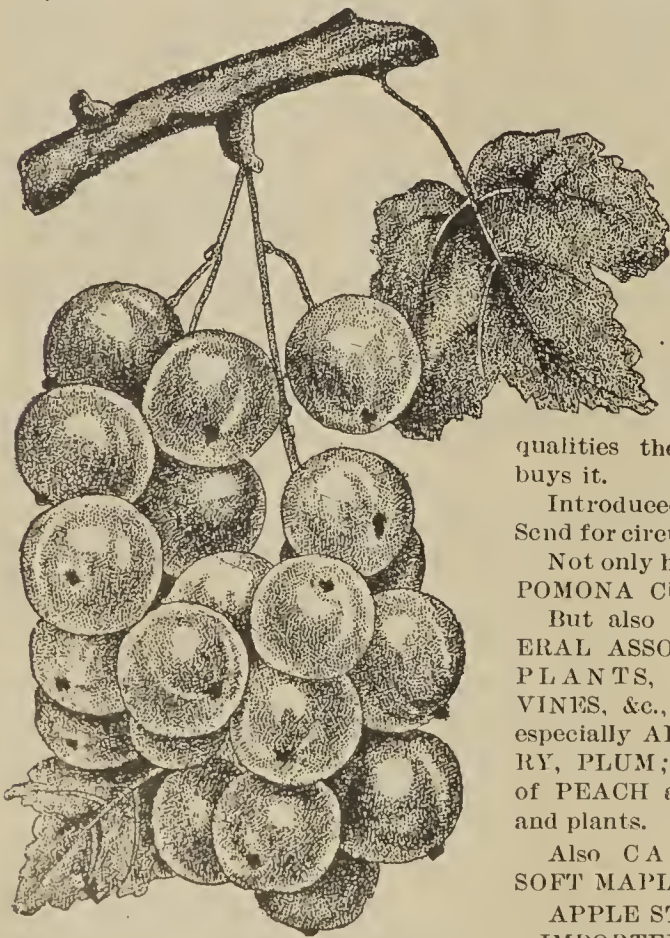
Best of all the dwarf Biotas; a perfect gem. Specimens were on exhibition at the Nurseryman's Association at Omaha. We have a stock of 14,000 plants for fall delivery; prices low.
Broad Leaved Evergreens, Cedrus Deodora, Retinosporas, and other rare conifers.

Greenhouse Department.

100,000 Palms—An especially fine lot of Latanias, Phoenix, Pandanus and Kentias.
Ficus, Decorative Plants, Crotons, Bedding Plants, 15,000 Camphor Trees, Sub-Tropical Fruits, etc.

Send for trade list and descriptive catalogue.

THE POMONA CURRANT.



The BEST SPECIALTY for the AGENTS for 1897 and 1898.

WHY? Because it is the best MONEY MAKER for the people to plant.

It is BEST in QUALITY.

Its returns come in the *quickest* and *surest*.

These being the qualities the planter is after, he buys it.

Introduced and for sale by us. Send for circulars, plates, terms, &c.

Not only have we a good stock of POMONA CURRANTS,

But also a COMPLETE GENERAL ASSORTMENT of TREES, PLANTS, ORNAMENTALS, VINES, &c., in CAR-LOAD LOTS, especially APPLE, PEAR, CHERRY, PLUM; with good assortment of PEACH and other fruit trees and plants.

Also CAROLINA POPLAR SOFT MAPLE, ELM, &c.

APPLE STOCKS.

IMPORTED FRENCH PEARS

MAHALEB, MYROBOLAN and QUINCE stocks.

SEE TRADE LIST.

ORDER SPADES EARLY.

A limited quantity of Natural PEACH PITS to offer.

Address, ALBERTSON & HOBBS,

BRIDGEPORT, MARION CO., INDIANA.

When writing to Advertisers mention The Nurseryman.

THE

Geneva Nursery

Established in 1846.

Headquarters for :

ORNAMENTAL TREES—Birch, Elms, Horse Chestnut, Norway and Sugar Maple, Lindens, Poplars, Magnolias, EVERGREENS.

Superb Collection of :

SHRUBS—Upright, Climbing and Standard.

ROSES—Hardy Dwarf, Tea, Climbing, Rambler, Tree.

RHODODENDRONS — Ponticum, Catawbiense, Named Hybrids.

PÆONIAS Large Assortment, Named Varieties.

DAHLIAS—New Cactus. Large Flowering, Ponpon.

full Assortment in :

Apples, Pears, Plums, Cherries and Quinces, CURRANTS
GOOSEBERRIES. RASPBERRIES.

We give special attention to Dealers' complete lists.
Fall trade list on application.

W. & T. Smith Co. GENEVA,
NEW YORK.

PEACH TREES at BAIRD'S Nurseries
by the 1000 or CAR
LOAD.

We grow trees for quality rather than quantity. Our customers say they give good satisfaction. If you want good trees, true to name, lower than such stock can be grown at a profit, write us how many and varieties wanted. We shall not continue this sort of business indefinitely,

ALSO

Peach and Japan Plum Buds in large assortment.

Send list for prices to

D. BAIRD & SON, BAIRD, N. J.

FOR SALE

100,000 2-year old Apple Seedlings.

Address . .

STEPHEN HOYTS SONS, NEW CANAAN, CONN.

J. RICE & SONS, WILLIAM STREET
NURSERIES, . . .

. . WHOLESALE GROWERS OF . .

Apple, Standard and Dwarf Pears, Cherries, Quince, Plums, European and Japan Currants, Peaches, Ornamental Shrubs, Roses, Etc.

Special low prices on European Plums, Standard and Dwarf Pears. Correspondence solicited.

J. Rice & Sons, GENEVA, N. Y.

When writing to Advertisers mention The Nurseryman.

October Purple Plum

Mr. Luther Burbank's latest, and he says best production. The fruit is one of the most attractive, as well as the best of all the Japan Plums. The color is reddish purple with a beautiful purple bloom. Form round. Size large ; some specimens sent us measuring over seven inches in circumference. It is a late variety as its name indicates. The tree is an erect handsome grower, forming an upright head like that of the Abundance. It is sure to have a large sale. We offer to the trade for this Fall a limited number of one year old trees. Prices given on application. No buds sold this season.

200,000 Apple Trees from three to five years old.

Address **Stephen Hoyt's Sons, New Canaan, Conn.**

GRAPE

ALL OLD AND NEW VARIETIES.

Immense Stock,
Warranted True.
QUALITY UNSURPASSED.

Send list of wants for prices.

An extra fine stock of CURRANTS at very low prices, including the valuable new WILDER.

Also DOWNING GOOSEBERRIES, very cheap. Other small fruits.

T. S. HUBBARD CO.,
FREDONIA, N. Y.

VINES

Of my own growing { 2000 Bismarck Apple.
1000 Hale Plum.
5000 Snow Ball.
2000 Altheas, Totus Albus and Jeanne D'Arc.
3000 Dogwood—variegated leaf.

Imported Seedlings, Tree Roses, Rhododendrons, Industry Gooseberry, etc., of superior quality:

Hiram T. Jones, Union Co. Nurseries, Elizabeth, N. J.

The Sparta Nurseries have to offer their Usual stock of dry baled Moss, both burlap and wired bales, and of the finest quality on the market. Also a full line of small fruit plants, high bush Cranberry, Juneberry and Huckelberry included. Ask for prices and terms.

Z. K. JEWETT & CO., Sparta, Wis.

ESTABLISHED 1866 BY BLAIR BROS.

R. H. BLAIR & CO.,

Office N. W. Cor. 11th and Walnut Sts., - Kansas City, Mo.

Proprietors of the LEES SUMMIT NURSERIES.

Apple and Peach, new and leading varieties by the car lots. Russian and American Apricots and native Plums by car lots. Pears, Cherries and a general assortment of Small Fruits and Ornamentals.

We are not surpassed by any Nursery in the west, in number of acres or quality of stock. We have the only practical box-clamp in use. Price reduced.

[ESTABLISHED 1876.]

ALLEN L. WOOD,

Rochester, N. Y.

EXTRA FINE PLANTS

At .
Wholesale.

The Largest Stock of
CURRANTS, GOOSEBERRIES,
RASPBERRIES, BLACK-
BERRIES, Etc.
in the United States. . . .

I will enter your order for ten plants, up to a carload, of any varieties. It will pay you to get my prices.

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Stakes for

NURSERY ROWS,
PACKING YARDS,
ROSE TREES, LILLIES,
and Everything in that Line
for the Nurserymen.

GREEN ELM CLEATS AND CORNERS.

J. E. CURTISS, BARRE CENTER, NEW YORK.

Honey Locust Hedge,

Most Ornamental for
Parks and Lawns.

Strong and handsome for farm fencing. Hardy for cold climates.

Easy seller at good profits. Put your agents on to it. Plates of this beautiful Hedge to sell from, furnished cheap. OSAGE ORANGE HEDGE and plates also.

WRITE FOR PRICES AND TRY THEM.

A. E. WINDSOR, - - - HAVANA, ILLS.

Ornamental

LARGE
SMALL

TREES

FLOWERING SHRUBS in great variety. Descriptive Catalogue and Price-List free.

SAMUEL C. MOON, Morrisville, Bucks County, Pa.

NURSEYRYMEN

Should read this, I have just what you want. Always in

stock, a nice clean article of dry baled SPHAGNUM MOSS. No delay or freight charges from branch roads. Orders for less than large car load shipped the first day received.

L. G. THOMPSON,

Write me for easy terms and prices.

TOMAH, WIS.

Wabash R. R.

Offers Unexcelled Service
to the WEST.

4 Daily Vestibuled Trains,
BUFFALO to CHICAGO.

2 Daily Vestibuled Trains,
BUFFALO to
ST. LOUIS, KANSAS CITY and OMAHA.

FREE RECLINING CHAIR CARS.
WAGNER SLEEPING CARS.
WABASH DINING CARS.

Full information regarding rates, etc., cheerfully given.
...Address, _____

O. S. CRANE, G. P. & T. A.,
St. Louis, Mo.

JAMES GASS,
N. Y. S. P. A.,
287 Main, Buffalo, N. Y.

R. F. KELLEY,
G. A. P. D.,
287 Main, Buffalo, N. Y.

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**APPLE
STD. PEAR
CHERRY
PEACH, Etc.**

... The Very Finest ...

OUR PRICES WILL SUIT YOU, WRITE US FOR THEM.

**THE MONROE NURSERIES,
I. E. Ilgenfritz's Sons,
MONROE,
MICH.**

©

Phoenix Nursery Co., Established 1852.
600 Acres.
13 Greenhouses.

**SUCCESSORS TO
SIDNEY TUTTLE & CO** **Nurserymen and Florists.**

Eastern agents for Rossney Pear, the best and handsomest pear yet introduced. We have an unusually fine stock of Irish Juniper, 2 to 3 ft. and 3 to 4 ft., also a splendid stock Hybrid Perpetual, Moss, Climbing, Hybrid Tea and Ever-blooming Roses, all on own roots. Correspondence solicited.

Send list of wants for prices.
P. O. BOX 625. BLOOMINGTON, ILL.

Hardy Herbaceous Plants Phlox, Iris,
Paeonies, Pyrethrums,
and the best general collection of other Hardy Plants and Rare
Shrubs in America. Wholesale Lists upon application.

THE READING NURSERY,
Established 1854. Jacob W. Manning, Reading, Mass.

High Grade Nursery Stock for Spring of '98.
Apples, Standard and Dwarf Pears, Cherries, Plums, Quinces,
Cut-Leaf Weeping Birch, Purple-Leaf Birch, Silver Maple,
Elms, Catalpa, Black Walnut and Butternut.
Write for Special Prices.

JAY WOOD, KNOWLESVILLE, N. Y.

10,000 Bismark Apples, 1 ft. to 5 ft.
10,000 Grafted Chestnuts, 1 yr. to 4 yrs.
10,000 Japan Walnuts, 1 yr. to 3 yrs.

PARRY'S POMONA NURSERIES, Parry, N. J.

F. & F. NURSERIES,
SPRINGFIELD, NEW JERSEY.

SURPLUS OF
PEACH, PLUM, CURRANTS,
POPLARS, AND SHADE TREES,
PRIVET; SHRUBBERY, EVERGREENS, ROSES.

<p>Apple, Peach, Standard Pears, Plum, Apricots, Grapes, Shade Trees, Evergreens, Shrubs,</p>	<p>HEADQUARTERS FOR NURSERY STOCK.</p> <p>Baltimore and Richmond Nurseries, BALTIMORE, MD.</p> <p>FRANKLIN DAVIS NURSERY CO. 50 YEARS. Tennessee Natural Peach Pits and selected Smock. 1000 ACRES. LOW PRICES ON PEACH TREES FOR EARLY ORDERS.</p>	<p>Strawberries, Nut Trees, Japan Pear Seedlings, Gooseberries, Roses, Raffia, General Supplies, &c., &c., &c.</p>
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**APPLE
TREES**

Two Years, 5-7 Feet. Northern Sorts.

**ABUNDANCE AND
. . . . WILLARD PLUM**

Two Years, 5-7 feet. Prices Low.

F.W. WATSON & CO.
TOPEKA, Kans.

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JAPAN 



TRADE MARK.

SUZUKI & IIDA

No. 11 Broadway, No. 3 Nakamura,
NEW YORK. YOKOHAMA.

CONSOLIDATED WITH THE

YOKOHAMA NURSERY CO.

The largest concern in the Nursery Trade in Japan.

Invite correspondence interested in Japanese Nursery
Stock, Bulbs, &c.

Safe Arrival of Goods Guaranteed.

1865.

1898.

JOHN CHARLTON & SONS'

UNIVERSITY AVENUE NURSERIES

ROCHESTER, N. Y.

offers for fall of 1898 and spring of 1899, a full line of Fruit and Ornamental Trees, Cut Leaf Weeping Birch, Fine Trees, all sizes, Flowering Shrubs, Roses, including Penzance's Sweet Briars, Crimson Ramblers, Marchioness of Londonderry, etc., etc. Clematis in variety, out door strong plants.

Fringe Leaf and other Paeonies, Transplanted Golden Glows, etc.

We offer 60,000 Peach Trees, free from curl and yellows in leading sorts.

*Campbell's Early and other grape vines,
Iceberg and other blackberries,
Bismarck Apples, fine trees.*

Dowing and other Gooseberries and nursery stock. Currants, the finest lot we ever offered, at low rates.

JOHN CHARLTON & SONS.

FRUIT PLATES

Vredenburg & Company,

AND NURSERY SUPPLIES. ROCHESTER, N. Y.

APPLE AND CHERRY TREES

In large stock and complete assortment. Also a full line of Pear, Peach, Quince and small fruits. A large supply of very fine

ORNAMENTAL TREES

including Norway Maples, Catalpa, Carolina, Lindens, Elms, etc. Also Shrubs and Vines. All stock inspected and certified. Send us your "want lists."

DAYTON STAR NURSERIES, Dayton, Ohio.

Strawberry Plants

For August and September Planting.

Our stock, which comprises all the leading new and older varieties, is the largest and finest we have ever grown, and our prices are right. Let us figure on your wants at this season.

We have also to offer

500,000 Raspberry Plants. 500,000 Blackberry Plants.

50,000 Dewberry Plants.

150,000 Currants, 2-1. 75,000 Gooseberry, 2-1.

Our stock is up-to-date in new varieties as well as the leading standard sorts. Price List Free.

W. N. SCARFF, New Carlisle, O.

When writing to Advertisers mention The Nurseryman.

T. R. WATSON,

Old Colony Nurseries

1840 * * 1898.

PLYMOUTH, MASS., U. S. A.

A Surplus Stock
of

HERBACEOUS PLANTS

Althea Rosea, (Hollyhocks), Asclepias Tuberosa,

Convallaria Majalis (Lily of the Valley, Sod)

Coreopsis Lanceolata, Gypsophila Paniculata,

Hemerocallis Dumortieri, Flava and Fulva,

Hibiscus Moscheutos, Liatris Scariosa.

Lobelia Cardinalis, Peonies Mixed.

50 Named Varieties

Platycodon or Wahlenbergia.

Low Prices Given on Application.

WHY NOT offer the ROSSNEY PEAR

in your Fall and Spring catalogues and through your Agents. It is the finest thing in a Pear, both in tree and fruit, ever offered to the public. If interested write us at once. Originated and grown only by us.

PIONEER NURSERIES COMPANY,

P. O. Box 1406. SALT LAKE CITY, UTAH.

Eastern Agents: Phoenix Nursery Co., P. O. Box 625, Bloomington, Ill.

Oak Hill Nurseries.

I have a large supply of

Peach, Plum, Apricot, Evergreens, Shade Trees, Etc.

It will pay you to get my prices.

C. L. LONGSDORF, FLORADALE, PA.

California Privet, Evergreens, Maples and Ornamental Trees.

Large trees for immediate effect.

M. F. TIGER, Patchogue, L. I., New York.

WANTED.

We wish to employ for the winter eight experienced men for grafting, packing and planting.

Address,

The Griffing Bros. Co., Nurserymen,
Macclenny, Fla.

When writing to Advertisers mention The Nurseryman.

The Shenandoah Nurseries

OFFER IN CAR LOTS:

*Apple, Cherry, Peach, Plum
and Ornamental Trees.*

NORTHERN-GROWN APPLE SEEDLINGS,
ALL GRADES:

Osage Orange Plants—One and Two Year.

LARGE GENERAL STOCK.

D. S. LAKE, Proprietor,

SHENANDOAH, IOWA.

Write for Prices.

Peach and Plum Trees • • •

FOR FALL 1898 AND SPRING 1899 DELIVERY.

All desirable leading old and new varieties of Peaches here in fruiting orchards. Have the new **Triumph**, **Greensboro** and **Sneed** fruiting. Buds can be supplied in season at low rates. Large stock of **Plum** trees, all on Plum roots, one and two year. Buds in season from either nurseries or orchard trees. Have all the leading Japanese varieties, **Abundance**, **Burbank**, **Chabot**, **Satsuma**, **Willard** and others. Also in good supply the new **Red June** and **Wickson**. Have the usual supply of **Asparagus Roots** to offer. Two and three years old, strong.

ALEXANDER PULLEN,

Milford Nurseries.

MILFORD, DEL.

NURSERY STOCKS

OF ALL KINDS AND VARIETIES.

Such as Maples, Alder, Althea, Aucuba, White Birch, Catalpa, Honeysuckles, Nuts, Japan Quince, Deutzia, Ash, Broom, Walnut, Ligustrum, Philadelphia, Acacia, Currants, Willows, Sambucus, Spirea, Lilacs, Tamarix, Viburnum, Weigelia, and all sorts of Fruit Tree Stocks, all 1, 2 and 3 years old or stronger plants, now offered at very low prices by

Transon Brothers Nurseries

BARBIER & CO., SUCCRS., ORLEANS, FRANCE.

For Price List Apply to

KNAUTH, NACHOD & KUHN, 13 William St, NEW YORK.

When writing to Advertisers mention The National Nurseryman.

The Rochester Star Nurseries,

Offer for Fall of '98 and Spring '99
a fine Assortment of

Standard and Dwarf Apples, Crabs,
Standard and Dwarf Pears, Cherries,
Plums, Peaches, Quinces,
Cuthbert and Shaffer's Colossal Raspberries,
Currants, Downing Gooseberries, Rhubarb.
Cut Leaf Weeping Birch, Catalpa,
Silver Maple, Horse Chestnut,
Weeping Mountain Ash,
Kilmarnock Willow,
Carolina and Lombardy Poplars.
Norway Spruce, Double Flowering Plum,
Purple Lilac, Spireas.

Send your want list to us before placing your order. We will please you not only in price and quality of stock, but also with satisfactory dealings in every respect.

Long Distance Telephone in our Office.

Use the Nurserymen's Telegraphic Code in Telegraphing.

Codes will be Furnished on Application.

Duplicate copy of Certificate of Inspection, given by State Commissioner of Agriculture, sent with every shipment, showing stock healthy.

THOMAS W. BOWMAN & SON,

1860.

ROCHESTER, N. Y.

1898.

FOR SALE.

An opportunity to engage in the Nursery business in Colorado. The oldest established Nursery in Colorado is for sale on very liberal terms. Owners have other business interests. No great amount of capital required. This is an opportunity of a lifetime. For full particulars, address,

Post Office Box 264, Canon City, Colo.

Everbearing Mulberries.

LARGE STOCK. LOW PRICES.

FREIGHT PAID.

Write us before you buy.

Carolina Nursery Co., Selma, N.C.

Hicks,
Russian,
Downing,
Black English,
White English,
New American

W. H. SALTER, ROCHESTER, N. Y.

WILL MAKE SPECIAL PRICES ON

CURRANTS.

Fay's, Cherry, White Grape and Lee's Prolific.

GOOSEBERRIES—Houghton, Smith and Downing.

Will also make surplus prices on Clematis Virginiana, fine strong plants. Moderate rates on Roses, Large Flowered Clematis, (field grown) Hydrangea P. G., Marlboro Raspberry, (transplants) Carnations and Chrysanthemums from pots, etc.

SURPLUS STOCK. Fall, '98, and Spring, '99.

CLEAN AND BRIGHT ELBERTA PEACH TREES.

and thirty other varieties, grown from natural seed on new land, single 100 or by earload lots, at low prices. Norway Spruce, fine bushy trees, 3 ft., 4 ft., 5 ft., 6 ft., 7 ft. White Spruce, 3 ft., 4 ft. Am. Arborvitae, 2 ft., 3 ft., 3½ ft., 4 ft. and 5 ft. Norway Maples, transplanted 18 inches, 2 ft., 3 ft. Norway Maples, stocky, 6 to 7 ft., 8 to 9 ft., and 10 feet. Carolina Poplars, 6 ft. to 28 ft., ½ inch to 6 inch caliper. California Privet, one and two years. Osage Orange, two years and some one year. MALVERN NURSERIES.

JOSIAH A. ROBERTS, Prop., Malvern, Penna.

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A Glimpse of One of
our Fields of

Northern Upland Grown Apple Seedlings,

At

Digging Season.

©

We offer all

GRADES of

**Apple
Seedlings**

Both Straight and
Branched Roots.

**Forest Tree
Seedlings**

of the following kinds:

R. Mulberry, Box Elder,
Honey Locust,
Black Locust.

Peach and Apricot Trees

No. 1. Good Assortment.

ROOT GRAFTS

Made to Order in any
style wanted.

©

J. A. GAGE,



FAIRBURY, NEB.

CAMPBELL'S EARLY GRAPE.

INSIST ON OUR SEALS AND THUS INSURE AGAINST IMPOSITION.

The Largest Stock of other First-Class Grape Vines. Extra Fine Stock of Gooseberries, Currants, Blackberries, &c. Let us Know your Wants.

GEO. S. JOSSELYN, Fredonia, N. Y.

High Grade Trees

Established 1853. 600 Acres.

Our stock of **Ornamental Trees** in variety, quantity and quality, exceeds all previous years. **Shrubbery** by the thousand, pruned and transplanted, embracing everything of value. Our great specialty, **Standard Shrubs**, is finer than last season. Give us a trial order for them.

The **Fruit Department** is fully up to the requirements of the trade in every line. Carload lots a specialty.

HOOPEs, BRO. & THOMAS,

Maple Avenue Nurseries.

WEST CHESTER, PA.

GRAPE VINES

All kinds of small fruits. Extra fine stock of root cutting Blackberry Plants. Our Grapevines will grade heavy. **Satisfaction guaranteed.** No price list this Fall. Send list of your wants for special Fall prices.

North Collins,
New York.

Eugene Willett & Son.

We—
haven't
a

Million Peach Trees

Now, Ready for Sale,

Yet we have probably the largest stock in the country.

Grown from natural seed

and there are none better—and the price
to the trade is right.

Get our Wholesale price to-day

and save you money.

OUR JUNE BUDDED list is complete—principally WADDELL and CARMAN,
and 50 others.

Plum Trees

on Plum Root,
Principally
Abundance,
2 year, 5 to 6 ft. 3-4 up.

Plum on Peach Root

General list of
varieties. . . .



Asparagus Roots

Columbian,
Mammoth White,
Donald's Elmira,
Palmetto,
Barr's and
Conover's.

No rust and the roots have
made a good growth.

Strawberry Plants

now ready to dig.

Nick Ohmer,

H. & H. No. 3,

Reid's Prolific

from the south and
70 other varieties. .

A good stock of

Improved Parker Earl,

Haverland, Bubach No. 5,

Gandy, Tennessee,

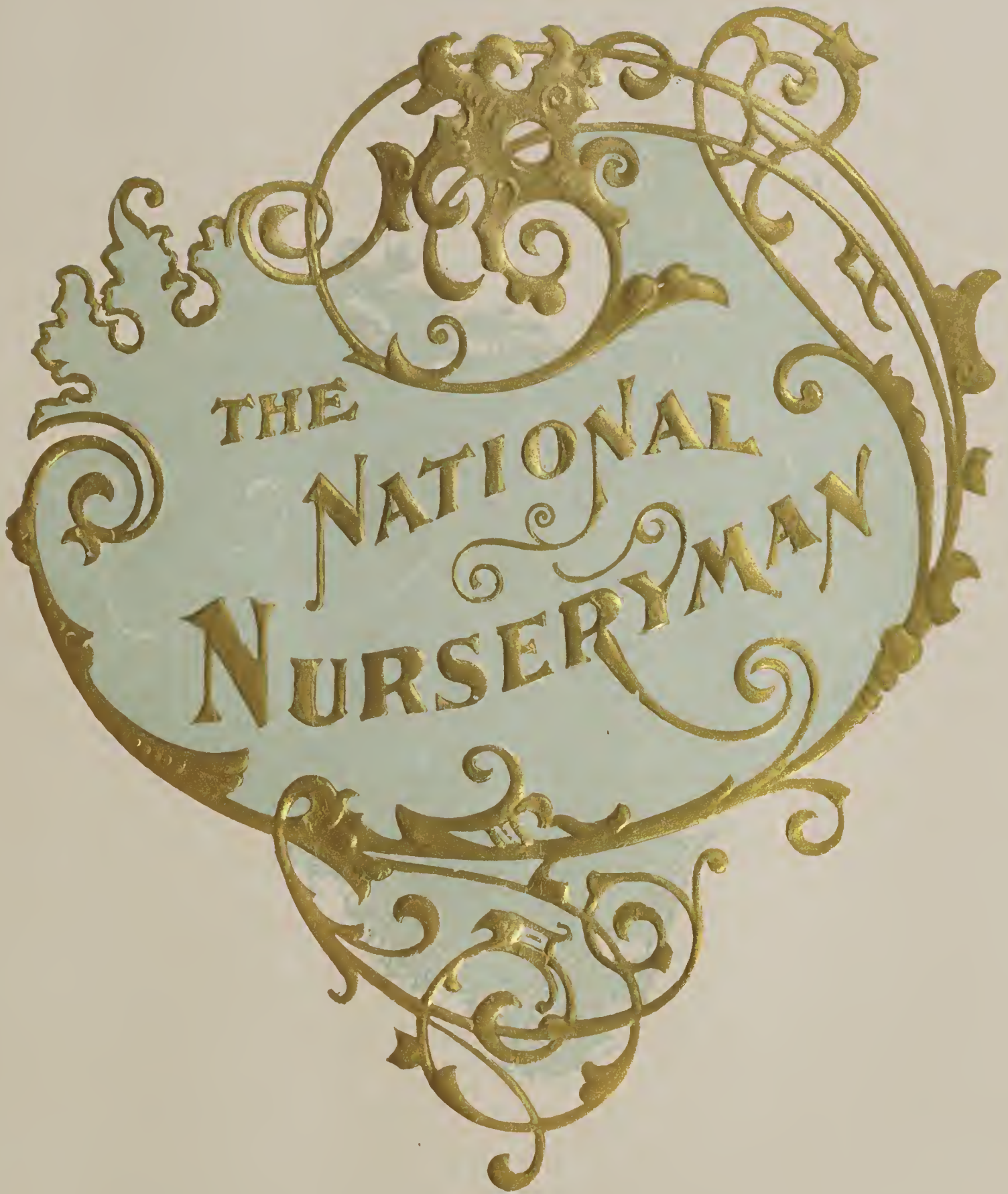
Prolific, Bismarck.

Get our PRICE on any quantity desired.

J. G. HARRISON & SONS,

Worcester County.

Berlin, Maryland.



November, 1898.



PAINESVILLE NURSERIES.

Located on the shore of Lake Erie, thirty miles east of Cleveland, grow as healthy and hardy nursery stock as can be found between the oceans, consisting of one of the most complete assortments of

Fruit and Ornamental Trees,
Small Fruits, Nut Bearing
Trees, Grape Vines, Shrubs,

Roses, Hardy Herbaceous
Plants, Climbing Vines, Bulbs
and Greenhouse Plants.

GROW MOST LARGELY.— Standard and Dwarf Pear, embracing all the leading sorts. European and Japan Plum, an extraordinary fine stock.

PEACH.— The product of a million budding, grown on the bank of Lake Erie, two miles removed from any peach orchards, and guaranteed free from peach borers, the great enemy to successful peach culture. Have our usual amount of other fruit trees, Apple, Cherry, Quince, Apricot, Nectarine, Mulberry, Persimmon.

SMALL FRUITS AND GRAPE VINES.— A full assortment, especially heavy in Gooseberries, Currants and root cutting Blackberry plants.

Headquarters for Ornamental Trees and Shrubs, including all the popular sorts.

WEeping TREES.— Particularly heavy in Teas Weeping Mulberry, the most satisfactory of all the decidedly drooping trees, also in Kilmarnock and Wisconsin Weeping Willows, as nice, clean stock as can be found, besides good supply of New American Willows, Camperdown, Elm, Mountain and European Weeping Ash, Cut Leaved and Young's Weeping Birches, Weeping Birch, Cornus, etc.

ROSES.— Nursery Grown our specialty and we flatter ourselves that we place a budded rose on the market, unexcelled by any grown in Europe or America, which are less liable to sucker than those grown by any other concern, roses that will make a more vigorous growth and continue more floriferous than those grown on own roots, still we can supply more or less on own roots when they are preferred.

OUR GREENHOUSE DEPARTMENT.— Consists of 32 houses, filled to overflowing with Roses, Palms, Araucarias, Ficus, Begonias, Dracenas, Pandanus, Ferns, etc. To provide for our increasing trade in this line, we are building 12 additional greenhouses, to be heated with two fifty-five horse-power boilers.

HOLLAND BULBS.— Have large stocks ordered from best growers that surely will please customers.

Correspondence Solicited. . . .

. . . Trade Lists and Catalogues Free.

The Storrs & Harrison Co.,

PAINESVILLE, OHIO.



"The most complete Nurseries on the American Continent."

THE MOUNT • • HOPE • • NURSERIES,

ROCHESTER, N. Y.

ELLWANGER & BARRY, Proprietors.

Established over fifty years ago, and still under the same management.

The largest and most complete collections of General Nursery Stock ever offered; the most approved varieties of FRUIT TREES, new and old, Grape Vines, Currants, Raspberries, Gooseberries, etc.

Superb collections of ORNAMENTAL TREES and SHRUBS, both deciduous and evergreen. HARDY ROSES, HARDY HERBACEOUS PLANTS, HERBACEOUS PÆONIES. HARDY PHLOXES.

Fine stock of Gooseberries and Currants.

Wholesale catalogue mailed free on request.

FOR FALL '98 AND SPRING '99.

20,000 Kenyon Red Raspberry,
20,000 Turner,
300,000 Elm, 1 year,
25,000 Silver Maple, 3 to 4 ft.,
75,000 Berberry, 1, 2 and 3 years old,
5,000 Picea Pungens, transplanted, 18 to 24 in.
10,000 " " " 12 to 18 in.
25,000 " " " 8 to 12 in.
50,000 " " seedlings, 2 years, 2 to 4 in.
50,000 Ponderosa Pine, " " " 4 to 6 in.
1,000 Paeony, Double Rose.
1,000 Paeony, Double Chinese.
500 P. L. Birch, 5 to 6 ft.
20,000 American and European Mt. Ash, transplanted, $\frac{1}{2}$, $\frac{2}{3}$, $\frac{3}{4}$ and 4 to 5 ft.
10,000 Horse Chestnut, transplanted, $\frac{2}{3}$ and $\frac{3}{4}$ ft.

❖ GARDNER & SON, Osage, Iowa.

Apple, Peach, Cherry, Plum and Shade Trees

JAPAN PEAR,

Apple and Russian Mulberry Seedling.

Hydrangea, Althea and other Shrubs.

NORTH TOPEKA NURSERIES,

A. L. BROOKE, Proprietor,

NORTH TOPEKA, KANS.

When writing to advertisers mention The National Nurseryman.

J. & P. Own-Root Roses have an unequalled reputation for universally giving satisfaction. There are none like them. Plenty of southern grown, field-rooted roses may be bought at less price, but their growth is all above ground. They do not have the roots that J. & P. Roses have. Good cultivation, heavy fertilization and careful grading have made J. & P. Roses prized above all others. Send for list of varieties and prices.

J. & P. Clematis are also unsurpassed. We are by far the largest growers of Clematis in this country, if not, indeed in the world. Our plants this year are even stronger than usual. Varieties: Henryii, Jackmanni, Lanuginosa, Candida, Mme. Baron Veillard, Mme. Ed. Andre, Paniculata, Ramona, etc.

Read what is said of J. & P. Roses and Clematis by the most particular buyers in this country:

ROCHESTER, N. Y., October 7, 1898.

Messrs. Jackson & Perkins Co.,
Newark, N. Y.

Gentlemen:

Referring to our recent correspondence in regard to the Yellow Rambler Roses would say, we have compared the sample received from (a leading firm) with your plants received a day or two ago and agree with you that yours are worth the extra price, and, as covered by another letter have given you an order for an additional thousand. In this connection, we also wish to take the opportunity of complimenting you on the Roses that have already been received. We have not opened up everything, but those that we have seen are unusually fine, good roots, good, clean, healthy stock. The Clematis are also extra fine and in fact, we haven't seen anything yet to make a kick on.

Yours truly,

CHASE BROS. COMPANY.

Send for our Price List which also offers, in good assortment, a fine stock of

Ornamental Trees, Currants, Cherries, Ornamental Shrubs, Gooseberries, Plums, Evergreens, Raspberries, Peaches, Herbaceous Plants, Blackberries, Quinces.

Special bargains in Currants, Gooseberries, Peaches and Quinces.

Are you handling our three specialties?

Yellow Rambler Rose, Cumberland Raspberry
and Iceberg Blackberry.

If not, why not? Send for sample plates and circulars. They are sellers.

CAUTION.—All persons are warned against purchasing any blackberry plants said to be of the white variety "Iceberg," originated by me, except the stock offered by Jackson & Perkins Co., of Newark, New York, whom I have appointed my sole agents for the propagation and introduction of said blackberry, and in whose hands I placed my entire stock.

LUTHER BURBANK, Santa Rosa, California.

JACKSON & PERKINS CO., Newark, N. Y.

KLONDIKE PEACH,

NAMED AND INTRODUCED BY

J. G. PATTERSON & SONS.

Placed at the Head of all Fancy, Late Market Peaches, by America's Highest Authorities.



Most beautiful late white peach in existence, says Prof. S. B. HEIGES, ex-Pomologist, U. S. Dept., Agriculture.

Sold Klondikes at 40 cents per one-half peck. Steadley and Smock brought only half that price.—WM. FREY, Fruit Grower, Pa.

Certainly a very handsome peach, possessing excellent quality, would assuredly command top figures in market.—J. W. KERR, Plum Specialist, Md.

Klondike is certainly the largest and best white fleshed peach I know of.—J. H. HALE, Peach King of America.

Klondike is as fine a white peach as we have ever seen at this season of the year. Would like to have your lowest price for 5,000 buds next season.—W. M. PETERS' SONS, Nurserymen, Md.

Fruit has never shown any indications of smut, mildew, black specks or cracking.

We have a good stock of this wonderful money maker, and will offer trees to the trade, for a short time only, at very moderate rates.

Also Large Assortment of PEACH and JAPAN PLUM TREES.

Let us make you prices on Car Load Lots.

J. G. PATTERSON & SONS,

Stewartstown Nurseries,

STEWARTSTOWN, PA.

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JOHN CHARLTON & SONS'

UNIVERSITY AVENUE NURSERIES

ROCHESTER, N. Y.

offers for fall of 1898 and spring of 1899, a full line of Fruit and Ornamental Trees, Cut Leaf Weeping Birch, Fine Trees, all sizes, Flowering Shrubs, Roses, including Penzance's Sweet Briars, Crimson Ramblers, Marchioness of Londonderry, etc., etc. Clematis in variety, out door strong plants.

Fringe Leaf and other Paeonies, Transplanted Golden Glows, etc.

We offer 60,000 Peach Trees, free from curl and yellows in leading sorts.

*Campbell's Early and other grape vines,
Iceberg and other blackberries,
Bismarck Apples, fine trees.*

Dowing and other Gooseberries and nursery stock. Currants, the finest lot we ever offered, at low rates.

JOHN CHARLTON & SONS.

Peach and Plum Trees • • •

FOR FALL 1898 AND SPRING 1899 DELIVERY.

All desirable leading old and new varieties of Peaches here in fruiting orchards. Have the new **Triumph**, **Greensboro** and **Sneed** fruiting. Buds can be supplied in season at low rates. Large stock of **Plum** trees, all on Plum roots, one and two year. Buds in season from either nurseries or orchard trees. Have all the leading Japanese varieties, **Abundance**, **Burbank**, **Chabot**, **Satsuma**, **Willard** and others. Also in good supply the new **Red June** and **Wickson**. Have the usual supply of **Asparagus Roots** to offer. Two and three years old. strong.

ALEXANDER PULLEN,
Milford Nurseries. MILFORD, DEL.

NURSERY STOCKS

OF ALL KINDS AND VARIETIES.

Such as Maples, Alder, Althea, Aucuba, White Birch, Catalpa, Honeysuckles, Nuts, Japan Quince, Deutzia, Ash, Broom, Walnut, Ligustrum, Philadelphia, Acacia, Currants, Willows, Sambucus, Spirea, Lilacs, Tamarix, Viburnum, Weigelia, and all sorts of Fruit Tree Stocks, all 1, 2 and 3 years old or stronger plants, now offered at very low prices by

Transon Brothers Nurseries
BARBIER & CO., SUCCRS., ORLEANS, FRANCE.

For Price List App to

KNAUTH, NACHOD & KUHNE, 13 William St, NEW YORK.

When writing to Advertisers mention The National Nurseryman.

The Rochester Star Nurseries,

Offer for Fall of '98 and Spring '99
a fine Assortment of

Standard and Dwarf Apples, Crabs,
Standard and Dwarf Pears, Cherries,
Plums, Peaches, Quinces,
Cuthbert and Shaffer's Colossal Raspberries,
Currants, Downing Gooseberries, Rhubarb.
Cut Leaf Weeping Birch, Catalpa,
Silver Maple, Horse Chestnut,
Weeping Mountain Ash,
Kilmarnock Willow,
Carolina and Lombardy Populars.
Norway Spruce, Double Flowering Plum,
Purple Lilac, Spireas.

Send your want list to us before placing your order. We will please you not only in price and quality of stock, but also with satisfactory dealings in every respect.

Long Distance Telephone in our Office.

Use the Nurserymen's Telegraphic Code in Telegraphing.

Codes will be Furnished on Application.

Duplicate copy of Certificate of Inspection, given by State Commissioner of Agriculture, sent with every shipment, showing stock healthy.

THOMAS W. BOWMAN & SON,

1860.

ROCHESTER, N. Y.

1898.

*Apple, Peach,
Cherry, Plum,
Pear, Dwf. Pear,
Apple Seedlings,
Forest Seedlings,
Osage Hedge,
GRAPE, GOOSEBERRIES and CURRANTS,
ORNAMENTAL TREES, SHRUBS,
ROSES and VINES.*

The above are well grown, and will be up to grade. Send us a list of your wants.

BREWER & STANNARD,
The Ottawa Star Nurseries,
OTTAWA, KANSAS.

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LOUIS LEROY'S NURSERIES

(Established 1795.)

ANGERS, (M. & L.) FRANCE.

GROWER AND WHOLESALE EXPORTE OF

FRUIT, FOREST and ORNAMENTAL STOCK

Camellias, Clematis, Coniferæ, Lilacs, Magnolias, Rhododendrons, Roses, Shrubs. Etc.

Prices, catalogues and all other information can be obtained by addressing

AUG. RHOTERT,

SOLE AGENT,

26 Barclay Street, (P. O. Box 2250) New York.

GRAPE

An extra fine stock of CURRANTS at very low prices, including the valuable new WILDER. Also DOWNING GOOSEBERRIES, very cheap. Other small fruits.

T. S. HUBBARD CO.,
FREDONIA, N. Y.

ALL OLD AND NEW VARIETIES.

Immense Stock,
Warranted True.
QUALITY UNSURPASSED.

Send list of wants for prices.

VINES

Of my own growing

- 2000 Bismarck Apple.
- 1000 Hale Plum.
- 5000 Snow Ball.
- 2000 Altheas, Totus Albus and Jeanne D'Arc.
- 3000 Dogwood—variegated leaf.

Imported Seedlings, Tree Roses, Rhododendrons, Industry Gooseberry, etc., of superior quality:

Hiram T. Jones, Union Co. Nurseries, Elizabeth, N. J.

The Sparta Nurseries

have to offer their Usual stock of dry baled Moss, both burlap and wired bales, and of the finest quality on the market. Also a full line of small fruit plants, high bush Cranberry, Juneberry and Huckelberry included. Ask for prices and terms.

Z. K. JEWETT & CO., Sparta, Wis

ESTABLISHED 1866 BY BLAIR BROS.

R. H. BLAIR & CO.,

Office N. W. Cor. 11th and Walnut Sts., - Kansas City, Mo.

Proprietors of the LEES SUMMIT NURSERIES.

Apple and Peach, new and leading varieties by the car lots. Russian and American Apricots and native Plums by car lots. Pears, Cherries and a general assortment of Small Fruits and Ornamentals.

We are not surpassed by any Nursery in the west, in number of acres or quality of stock. We have the only practical box-clamp in use. Price reduced.

[ESTABLISHED 1876]

ALLEN L. WOOD,

Rochester, N. Y.

EXTRA FINE

PLANTS

At . .
Wholesale.

The Largest Stock of
CURRANTS, GOOSEBERRIES,
RASPBERRIES, BLACK-
BERRIES, Etc.

in the United States. . . .

I will enter your order for ten plants, up to a carload, of any varieties. It will pay you to get my prices.

You Can Afford It Now

Those who have not subscribed for the nurserymen's trade journal should do so at once

Keep up with the Times

Competition is increasing. Those best informed on trade matters forge ahead. Send One Dollar and receive regularly the official journal,

The National Nurseryman,

EXCLUSIVELY THE NURSERYMEN'S MEDIUM. NOTE ITS PATRONS.

305 Cox Building, Rochester, N. Y.

When writing to advertisers mention The National Nurseryman.

Stakes for

NURSERY ROWS,
PACKING YARDS,
ROSE TREES, LILLIES,
and Everything in that Line
for the Nurserymen.

GREEN ELM CLEATS AND CORNERS.

J. E. CURTISS, BARRE CENTER, NEW YORK.

Honey Locust Hedge,

Most Ornamental for
Parks and Lawns.

Strong and handsome for farm fencing. Hardy for cold climates.

Easy seller at good profits. Put your agents on to it. Plates of this beautiful Hedge to sell from, furnished cheap. OSAGE ORANGE HEDGE and plates also.

WRITE FOR PRICES AND TRY THEM.

A. E. WINDSOR, - - - HAVANA, ILLS.

Ornamental

LARGE
SMALL

TREES

FLOWERING SHRUBS in great variety. Descriptive Catalogue and Price-List free.

SAMUEL C. MOON, Morrisville, Bucks County, Pa.

NURSERYMEN

Should read this, I have just what you want. Always in stock, a nice clean article of dry baled SPHAGNUM MOSS. No delay or freight charges from branch roads. Orders for less than large car load shipped the first day received.

L. G. THOMPSON,

Write me for easy terms and prices.

TOMAH, WIS.

Wabash R. R.

Offers Unexcelled Service
to the WEST.

4 Daily Vestibuled Trains,
BUFFALO—to—CHICAGO.

2 Daily Vestibuled Trains,
—BUFFALO to—
ST. LOUIS, KANSAS CITY and OMAHA.

FREE RECLINING CHAIR CARS.
WAGNER SLEEPING CARS.
WABASH DINING CARS.

Full information regarding rates, etc., cheerfully given.
...Address, ———

C. S. CRANE, G. P. & T. A.,
St. Louis, Mo.

JAMES GASS, R. F. KELLEY,
N. Y. S. P. A., G. A. P. D.,
287 Main, Buffalo, N. Y. 287 Main, Buffalo, N. Y.

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APPLE
 STD. PEAR
 CHERRY—
 PEACH, Etc.
 . . . The Very Finest . . .
 OUR PRICES WILL SUIT YOU, WRITE US FOR THEM.
 THE MONROE NURSERIES,
 I. E. Ilgenfritz's Sons,
 MONROE,
 MICH.

Phoenix Nursery Co., Established 1852.
 600 Acres.
 13 Greenhouses.
 SUCCESSIONS TO SIDNEY TUTTLE & CO. Nurserymen and Florists.
 Eastern agents for Rossney Pear, the best and handsomest pear yet introduced. We have an unusually fine stock of Irish Juniper, 2 to 3 ft. and 3 to 4 ft., also a splendid stock Hybrid Perpetual, Moss, Climbing, Hybrid Tea and Ever-blooming Roses, all on own roots. Correspondence solicited.
 Send list of wants for prices.
 P. O. BOX 625. **BLOOMINGTON, ILL.**

Hardy Herbaceous Plants Phlox, Iris,
 Paeonies, Pyrethrums,
 and the best general collection of other Hardy Plants and Rare
 Shrubs in America. Wholesale Lists upon application.
THE READING NURSERY,
 Established 1854. Jacob W. Manning, Reading, Mass.

High Grade Nursery Stock for Spring of '98.
 Apples, Standard and Dwarf Pears, Cherries, Plums, Quinces,
 Cut-Leaf Weeping Birch, Purple-Leaf Birch, Silver Maple,
 Elms, Catalpa, Black Walnut and Butternut.
 Write for Special Prices.
JAY WOOD, KNOWLESVILLE, N. Y.

10,000 Bismark Apples, 1 ft. to 5 ft.
 10,000 Grafted Chestnuts, 1 yr. to 4 yrs.
 10,000 Japan Walnuts, 1 yr. to 3 yrs.
PARRY'S POMONA NURSERIES, Parry, N. J.

F. & F. NURSERIES,
 SPRINGFIELD, NEW JERSEY.
 SURPLUS OF
 PEACH, PLUM, CURRANTS,
 POPLARS, AND SHADE TREES,
 PRIVET; SHRUBBERY, EVERGREENS, ROSES.

Apple, Peach, Standard Pears, Plum, Apricots, Grapes, Shade Trees, Evergreens, Shrubs,	HEADQUARTERS FOR NURSERY STOCK. Baltimore and Richmond Nurseries, BALTIMORE, MD. FRANKLIN DAVIS NURSERY CO. 50 YEARS. Tennessee Natural Peach Pits and selected Smock. 1000 ACRES. LOW PRICES ON PEACH TREES FOR EARLY ORDERS.	Strawberries, Nut Trees, Japan Pear Seedlings, Gooseberries, Roses, Raffia, General Supplies, &c., &c., &c.
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Apple Root Grafts.
....Pear Root Grafts....

WE HAVE a fine lot of Seedlings and Cions—
 have just completed a new grafting house
 —and are prepared in every way to put
 up a good graft; a graft that will grow.
 There is a great demand for Root Grafts
 this year, and prospective buyers will only
 be certain of the fulfillment of their orders
 by placing the same early.

♦♦♦♦♦♦♦♦♦♦
F. W. WATSON & CO.,
 Topeka, Kansas.

JAPAN 

TRADE  MARK.

SUZUKI & IIDA
 No. 11 Broadway, No. 3 Nakamura,
 NEW YORK. YOKOHAMA.
 CONSOLIDATED WITH THE
YOKOHAMA NURSERY CO.
 The largest concern in the Nursery Trade in Japan.
 Invite correspondence interested in Japanese Nursery
 Stock, Bulbs, &c.
Safe Arrival of Goods Guaranteed.

FRENCH FRUIT TREE AND NURSERY STOCKS.

APPLE, ♦ PEAR, ♦ PLUM, ♦ CHERRY, ♦ QUINCE.
FOREST TREE SEEDLINGS AND ORNAMENTALS.

FROM LENAUL HUET, USSY, CALVADOS, FRANCE.

FOSTITE, to prevent Mildew and Black Rot on Grapes, Gooseberries, Potatoes, Tomatoes, Cabbage, Roses, etc.
JOOSTEN'S MAGAZINE BELLOWS, the best for applying Sulphur, Fostite, and other Plant and Insect Powders.

FROM THE BOSKOOP, HOLLAND, NURSERY ASSOCIATION.

Hardy, Dwarf Budded and Tree Roses, Extra Hardy Rhododendrons, grafted on Parson's Hardy American Catawbiense Stock, Hardy Azaleas, Hydrangeas, Snowballs, Clematis, Deutzias, etc.

BULBS: Hyacinths, Tulips, Narcissus, Crocus, etc., for the greenhouse, the garden, parks and cemeteries.

C. H. JOOSTEN, 193 Greenwich St., New York.
AGENT AND IMPORTER.

Different Catalogues in Season, sent on Application.

CAMPBELL'S EARLY GRAPE.

INSIST ON OUR SEALS AND THUS INSURE AGAINST IMPOSITION.

The Largest Stock of other First-Class Grape Vines. Extra Fine Stock of Gooseberries, Currants, Blackberries, &c. Let us Know your Wants.

GEO. S. JOSSELYN, Fredonia, N. Y.

STANDARD APPLES FOR SALE.

Two lots of Standard Apples, 5-8 grade, of good assortment. One lot of 7,000 trees, and one lot of 5,000 will be sold cheap to clear ground. Late fall shipment and June payment. Send for lists of varieties and prices, if interested.

Also Blackberries from root cuttings, and a lot of about 3,000 Standard Pears, 7-8 to 1 1-8, two yr. Heads nice, smooth and clean.

PIERSON BROTHERS,
WATERLOO, N. Y.

APPLE
SEEDLINGS.

First class stock at reasonable prices, in large or small quantities. Apple grafts made to order. Shade Trees, Forest Seedlings, and Osage Hedge Plants.

SAN JOSE SCALE has never been found in Nebraska.

YOUNGERS & CO.,
GENEVA, NEBRASKA.

Situation Wanted!

As Foreman or Manager of Nursery. Life experience with some of the largest firms in the United States, and have a thorough practical knowledge of all the details of the business, and for the past six years have had charge of a large concern. Position desired for this fall or next spring. Best of references as to character and ability.

Address, **FOREMAN, Care NATIONAL NURSERYMAN.**

P. SEBIRE & SONS, Nurserymen,
USSY, CALVADOS, FRANCE.

A general assortment of Fruit Tree Stocks, such as Apple, Pear, Myro-bolan Plum, Mahaleb and Mazzard Cherry, Angers Quince, Small Evergreens, Forest Trees, Ornamental Shrubs, Roses, Etc. The largest stock in the country. Prices very low. Packing secured. Send for quotations before placing your orders elsewhere. Catalogue free. Agents for U. S. America and Canada.

C. C. ABEL & CO., P. O. Box 920, New York.
When writing to Advertisers mention The Nurseryman.

CHARLES DETRICHE, Senior,
ANGERS, FRANCE,

Grower and Exporter of Fruit Tree Stocks, Forest Trees and Ornamentals.

Extra Large Assortments of Shrubs, Conifers, etc.

Prices on Application.

JACKSON & PERKINS CO., NEWARK, N. Y.
Sole Representatives for the United States.

Mr. Detriche would be glad to receive any horticultural catalogues or papers.

FALL SHIPMENT, After November 10th to responsible firms.

No. 1 Stock to store for early orders. **SPRING PAYMENT.**

500,000 RASPBERRY PLANTS,	500,000 BLACKBERRY PLANTS,
150,000 CURRANTS, 2-1,	50,000 DEWBERRY PLANTS,
50,000 " 2-2,	75,000 GOOSEBERRY, 2-1,
	25,000 " 2-2.

Grape Vines, Asparagus Roots, Horse Radish, Rhubarb, etc. Currant, Gooseberry and Quince Cuttings.

Complete price list free. Everything inspected August 27, 1898.

W. N. SCARFF,
NEW CARLISLE, O.

The Syracuse Nurseries

...THE WORDEN SECKEL PEAR...

One of the most beautiful, productive and delicious pears ever offered to the public. For description, testimonials and price, address the Disseminators.

SMITHS & POWELL COMPANY,
SYRACUSE, N. Y.

Also a general assortment of budded Apples, Standard and Dwarf Pears, Plums, Cherries, Peaches, Roses, Ornamental Trees, Shrubs and Vines. All of superior quality and carefully graded. We issue no Trade Price List, but will make low prices by letter. Write or come and see us.

When writing to Advertisers mention The National Nurseryman.

SURPLUS STOCK. Fall, '98, and Spring, '99.
CLEAN AND BRIGHT ELBERTA PEACH TREES.
and thirty other varieties, grown from natural seed on new land, single 100 or by earload lots, at low prices. Norway Spruce, fine bushy trees, 3 ft., 4 ft., 5 ft., 6 ft., 7 ft., White Spruce, 3 ft., 4 ft. Am. Arborvitae, 2 ft., 3 ft., 3½ ft., 4 ft. and 5 ft. Norway Maples, transplanted 18 inches, 2 ft., 3 ft. Norway Maples, stocky, 6 to 7 ft., 8 to 9 ft., and 10 feet. Carolina Poplars, 6 ft. to 28 ft., ½ inch to 6 inch caliper. California Privet, one and two years. Osage Orange, two years and some one year. **MALVERN NURSERIES.**
JOSIAH A. ROBERTS, Prop., Malvern, Penna.

FOR SALE. An opportunity to engage in the Nursery business in Colorado. The oldest established Nursery in Colorado is for sale on very liberal terms. Owners have other business interests. No great amount of capital required. This is an opportunity of a lifetime. For full particulars, address,
Post Office Box 264, Canon City, Colo.

FRUIT PLATES **Vredenburg & Company,**
AND NURSERY SUPPLIES. **ROCHESTER, N. Y.**

W. T. HOOD & CO.,
Old Dominion Nurseries
RICHMOND, VA.
Will have a full stock for the trade of fall of '98 and spring of '99 of
Apple, Peach, Standard Pear, Cherry and Ornamentals.
500 bushels of natural Peach Pits, crop of '97.

WANTED—To sell an interest in the Old Dominion Nurseries to a thorough practical nurseryman. **W. T. HOOD.**

The
Shenandoah Nurseries

OFFER IN CAR LOTS:
Apple, Cherry, Peach, Plum and Ornamental Trees.
NORTHERN-GROWN APPLE SEEDLINGS,
ALL GRADES.
Osage Orange Plants—One and Two Year.
LARGE GENERAL STOCK.
D. S. LAKE, Proprietor,
SHENANDOAH, IOWA.
Write for Prices.
When Writing to Advertisers mention The National Nurseryman.

SNOWHILL NURSERIES.
Must be Sold to Clear the Land.

300,000 Peach Trees—One year from bud, in four grades.
20,000 Japan Plums—One year old.
20,000 Grape Vines—Two and three years old.
100,000 Asparagus Roots—Two and three years old
Three Million Strawberry Plants.

Favor us with your list of wants. Our prices will surprise you. Descriptive catalogue if requested.

W. M. PETERS SONS,
WESLEY, MD.

ESTABLISHED 1780.
ANDRE LEROY NURSERIES,
Brault & Son, Directors, Angers, France,
Beg to announce to the trade that their extensive spring sowing will enable them to supply for the Fall 1898 and Spring 1899, large quantities of first-class, well-graded **FRUIT SEEDLINGS** at lowest market prices, also a fine and complete variety of **ORNAMENTALS, ROSES, SHRUBS, Etc.** Apply for special quotations to
ANDRE L. CAUSSE, Agent,
105-107 Hudson St., **NEW YORK.**
Rate, including all shipping charges from Angers to F. O. B. New York, given on application.

200,000 Peach Trees, | **100,000 Blackberry,**
2,000,000 Strawberry Plants, | **500,000 Raspberries.**
Eldorado, Maxwell and Lucreiat Blackberries.
MILLER, LOUDON and TRIUMPH,
COLUMBIAN . . . GREENSBORO and EMMA,
Raspberries. and a full
Wickson, Red June and Giant assortment of
PLUMS. AND OTHER FRUIT.
It will be to advantage of those in the trade to correspond with us.
Our Catalogue will save you money.
MYER & SON,
BRIDGEVILLE, DELAWARE.
When writing to Advertisers mention The National Nurseryman.

P. J. BERCKMANS.
L. A. BERCKMANS.

ESTABLISHED IN 1856.

R. C. BERCKMANS.
P. J. A. BERCKMANS, JR.

FRUITLAND NURSERIES

P. J. BERCKMANS CO., (Incorporated.)
AUGUSTA, GA.

Over ONE ACRE under glass 360 ACRES in Nursery Stock.

The stock now growing is up to the usual past high grade, all of thrifty growth, no old rubbish, and free from scale or disease.

Fruit Department.

Apples, Cherries, Figs, Pears, (an extra fine lot of 100,000 standard 2 and 3 years, largely of Kieffer), Paper Shell Pecans, Plums (Japan) on Marianna, English Walnuts, Grape Vines, etc. Special prices for car load lots.

Everbearing Peach.

A valuable novelty. Specimens of fruit showing three stages of maturity were exhibited at the meeting of the Georgia State Horticultural Society at Americus, Ga., Aug. 3d, 1898, and attracted much attention.

Ornamental Department.

150,000 Amoor Privet—Unsurpassed as an evergreen hedge plant.
50,000 Citrus Trifoliata—Japan Hardy Lemon; best defensive hedge plant, stands 15 degrees below zero.
150,000 Roses—Field grown; including 10,000 Marechal Niel budded upon Manetti, 3-5 feet.
Two Acres in Canna.

Biota Aurea Nana.

Best of all the dwarf Biotas; a perfect gem. Specimens were on exhibition at the Nurseryman's Association at Omaha. We have a stock of 14,000 plants for fall delivery; prices low.
Broad Leaved Evergreens, Cedrus Deodora, Retinosporas, and other rare coniferae.

Greenhouse Department.

100,000 Palms—An especially fine lot of Latanias, Phoenix, Pandanus and Kentias.
Ficus, Decorative Plants, Crotons, Bedding Plants, 15,000 Camphor Trees, Sub-Tropical Fruits, etc.

Send for trade list and descriptive catalogue.

THE POMONA CURRANT.



The BEST SPECIALTY for the AGENTS for 1897 and 1898.

WHY? Because it is the best MONEY MAKER for the people to plant.

It is BEST in QUALITY.

Its returns come in the quickest and surest.

These being the qualities the planter is after, he buys it.

Introduced and for sale by us. Send for circulars, plates, terms, &c.

Not only have we a good stock of POMONA CURRANTS,

But also a COMPLETE GENERAL ASSORTMENT of TREES, PLANTS, ORNAMENTALS, VINES, &c., in CAR-LOAD LOTS, especially APPLE, PEAR, CHERRY, PLUM; with good assortment of PEACH and other fruit trees and plants.

Also CAROLINA POPLAR SOFT MAPLE, ELM, &c.

APPLE STOCKS.

IMPORTED FRENCH PEARS

MAHALEB, MYROBOLAN and QUINCE stocks.

SEE TRADE LIST.

ORDER SPADES EARLY.

A limited quantity of Natural PEACH PITS to offer.

Address, ALBERTSON & HOBBS,

BRIDGEPORT, MARION CO., INDIANA.

When writing to Advertisers mention The Nurseryman.

THE

Geneva Nursery

Established in 1846.

Headquarters for : :

ORNAMENTAL TREES—Birch, Elms, Horse Chestnut, Norway and Sugar Maple, Lindens, Poplars, Magnolias, EVERGREENS.

Superb Collection of : :

SHRUBS—Upright, Climbing and Standard.

ROSES—Hardy Dwarf, Tea, Climbing, Rambler, Tree.

RHODODENDRONS — Ponticum, Catawbiense, Named Hybrids.

PÆONIAS—Large Assortment, Named Varieties.

DAHLIAS—New Cactus, Large Flowering, Ponpon.

full Assortment in : :

Apples, Pears, Plums, Cherries and Quinces, CURRANTS
GOOSEBERRIES. RASPBERRIES.

We give special attention to Dealers' complete lists.
Fall trade list on application.

W. & T. Smith Co. GENEVA
NEW YORK.

PEACH TREES at BAIRD'S Nurseries
by the 1000 or CAR
LOAD.

We grow trees for quality rather than quantity. Our customers say they give good satisfaction. If you want good trees, true to name, lower than such stock can be grown at a profit, write us how many and varieties wanted. We shall not continue this sort of business indefinitely,

ALSO

Peach and Japan Plum Buds in large assortment.

Send list for prices to

D. BAIRD & SON, BAIRD, N. J.

WE WANT Russian Mulberry Ten Feet,
kindly state quantity and price.

ROSEDALE NURSERY, Brenham, Texas.

J. RICE & SONS, WILLIAM STREET
NURSERIES, . . .

. . . WHOLESALE GROWERS OF . .

Apple, Standard and Dwarf Pears, Cherries, Quince, Plums, European and Japan Currants, Peaches, Ornamental Shrubs, Roses, Etc.

Special low prices on European Plums, Standard and Dwarf Pears. Correspondence solicited.

J. Rice & Sons, GENEVA, N. Y.

When writing to Advertisers mention The Nurseryman.

Peters & Skinner, North Topeka, Kansas.

CAPITAL NURSERIES.

Apple Seedling

*Keiffer Pear Seedling,
French Pear Seedling,
Japan Pear Seedling,
Russian Mulberry,
Box Elder and
Osage Seedling.*

Trees

*Apple, Peach, Cherry,
Plum and Apricot.*

KEIFFER, GARBER AND KOONCE PEAR.

Bechtel's Double Flowering Crab.

PETERS & SKINNER, North Topeka,
Kansas.

For Park and Street Planting.

American, Scotch and English Elm, Silver, Sugar and Norway Maples, Carolina and Lombardy Poplars, Horse Chestnuts, American White Ash, Cut-Leaved Birch, Purpled Leaved Beech, Catalpa, American and European Lindens.

Extra Size, 6 to 20 feet, 1 to 6 inches.

Heavily stocked with Kilmarnock and New American Willow, Camperdown Elm, Tea's Weeping Mulberry, Siberian and American Arbor Vitæ, Norway Spruce, and a great variety of Shrubs and Roses.

Apples, Pears, Plums, Cherries, CURRANTS and GOOSEBERRIES extensively grown. Better stock never grew.

NELSON BOGUE

BATAVIA NURSERIES,

BATAVIA, N. Y.

When writing to Advertisers mention The Nurseryman.

"Largest Orchards and Nurseries in the State."

1846 E. SMITH & SONS, 1898

GENEVA, N. Y.

ARE OFFERING SPECIAL INDUCEMENTS

to NURSEYMEN and DEALERS on

*Standard and Dwarf Pears,
European and Japan Plums,
Sweet and Sour Cherries,
Quinces, Apples, Peaches,
Maples, Ash, Hydrangeas,
Roses, Evergreens
and Small Fruits.*

Headquarters for new varieties of fruit.
Submit a list of wants and get our price.

New!

Plums *Empire, Wickson "Japan."* Peaches *Fitzgerald, Triumph.*

From Anywhere **East**

To Everywhere **West**

The Great Rock Island Route

IS THE BEST LINE.

The Great Cities of

Northwest—West—Southwest

Reached quickly and comfortably in up-to-date through Pullman Sleepers and Free Reclining Chair Cars operated on fast trains.

Tourists en route to the resorts of the Rocky Mountains, to California, the North Pacific Coast or to the

GREAT TRANS-MISSISSIPPI EXPOSITION

AT OMAHA, NEB.,

should write the undersigned for rates, folders and literature.

Chas. Kennedy, G. E. P. A., Jno. Sebastian, G. P. A.,
305 Broadway, NEW YORK. CHICAGO, ILL.

When writing to Advertisers mention The Nurseryman.

We haven't
a . . .

Million Peach Trees

Now, Ready for Sale,

Yet we have probably the largest stock in the country.

Grown from natural seed

and there are none better—and the price
to the trade is right.



Get our Wholesale price to-day

and save you money.

OUR JUNE BUDDED list is complete—principally WADDELL and CARMAN,
and 50 others.

Plum Trees

on Plum Root,

Principally

Abundance,

2 year, 5 to 6 ft. 3-4 up.

Plum on Peach Root

General list of
varieties. . . .



Asparagus Roots

Columbian,
Mammoth White,
Donald's Elmira,
Palmetto,
Barr's and
Conover's.

No rust and the roots have
made a good growth.

Strawberry Plants

now ready to dig.

Nick Ohmer,

H. & H. No. 3,

Reid's Prolific

from the south and
70 other varieties. .



A good stock of

Improved Parker Earl,

Haverland, Bubach No. 5,

Gandy, Tennessee,

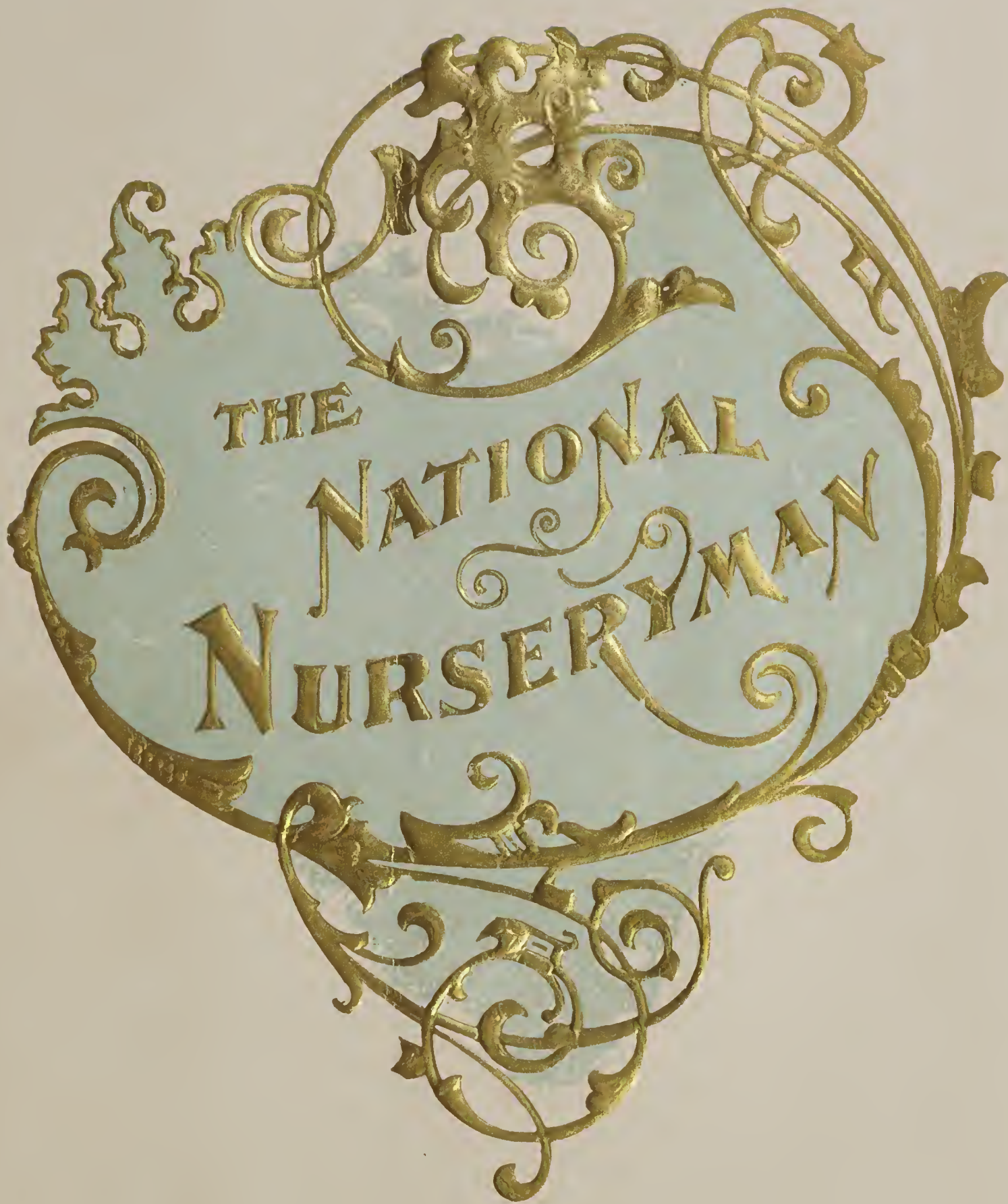
Prolific, Bismarck.

Get our PRICE on any quantity desired.

J. G. HARRISON & SONS,

Worcester County.

Berlin, Maryland.



December, 1898.



PAINESVILLE NURSERIES.

Located on the shore of Lake Erie, thirty miles east of Cleveland, grow as healthy and hardy nursery stock as can be found between the oceans, consisting of one of the most complete assortments of

Fruit and Ornamental Trees,
Small Fruits, Nut Bearing
Trees, Grape Vines, Shrubs,

Roses, Hardy Herbaceous
Plants, Climbing Vines, Bulbs
and Greenhouse Plants.

GROW MOST LARGELY.— Standard and Dwarf Pear, embracing all the leading sorts. European and Japan Plum, an extraordinary fine stock.

PEACH.— The product of a million budding, grown on the bank of Lake Erie, two miles removed from any peach orchards, and guaranteed free from peach borers, the great enemy to successful peach culture. Have our usual amount of other fruit trees, Apple, Cherry, Quince, Apricot, Nectarine, Mulberry, Persimmon.

SMALL FRUITS AND GRAPE VINES.— A full assortment, especially heavy in Gooseberries, Currants and root cutting Blackberry plants.

Headquarters for Ornamental Trees and Shrubs, including all the popular sorts.

WEeping TREES.— Particularly heavy in Teas' Weeping Mulberry, the most satisfactory of all the decidedly drooping trees, also in Kilmarnock and Wisconsin Weeping Willows, as nice, clean stock as can be found, besides good supply of New American Willows, Camperdown Elm, Mountain and European Weeping Ash, Cut Leaved and Young's Weeping Birches, Weeping Birch, Cornus, etc.

ROSES.— Nursery Grown our specialty and we flatter ourselves that we place a budded rose on the market, unexcelled by any grown in Europe or America, which are less liable to sucker than those grown by any other concern, roses that will make a more vigorous growth and continue more floriferous than those grown on own roots, still we can supply more or less on own roots when they are preferred.

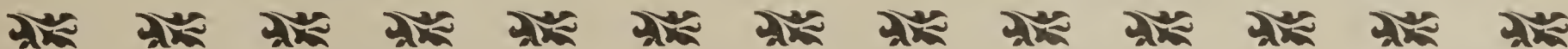
OUR GREENHOUSE DEPARTMENT.— Consists of 32 houses, filled to overflowing with Roses, Palms Araucarias, Ficus, Begonias Dracenas, Pandanus, Ferns, etc. To provide for our increasing trade in this line, we are building 12 additional greenhouses, to be heated with two fifty-five horse-power boilers.

HOLLAND BULBS.— Have large stocks ordered from best growers that surely will please customers.



Correspondence Solicited. . . .
. . . Trade Lists and Catalogues Free.

The Storrs & Harrison Co.,
PAINESVILLE, OHIO.



"The most complete Nurseries on the American Continent."

THE MOUNT • • HOPE • • NURSERIES,

ROCHESTER, N. Y.

ELLWANGER & BARRY, Proprietors.

Established over fifty years ago, and still under the same management.

The largest and most complete collections of General Nursery Stock ever offered; the most approved varieties of FRUIT TREES, new and old, Grape Vines, Currants, Raspberries, Gooseberries, etc.

Superb collections of ORNAMENTAL TREES and SHRUBS, both deciduous and evergreen. HARDY ROSES, HARDY HERBACEOUS PLANTS, HERBACEOUS PÆONIES. HARDY PHLOXES.

Fine stock of Gooseberries and Currants.

Wholesale catalogue mailed free on request.

FOR FALL '98 AND SPRING '99.

20,000 Kenyon Red Raspberry,
20,000 Turner,
300,000 Elm, 1 year,
25,000 Silver Maple, 3 to 4 ft.,
75,000 Berberry, 1, 2 and 3 years old,
5,000 Picea Pungens, transplanted, 18 to 24 in.
10,000 " " " 12 to 18 in.
25,000 " " " 8 to 12 in.
50,000 " " seedlings, 2 years, 2 to 4 in.
50,000 Ponderosa Pine, " " 4 to 6 in.
1,000 Paeony, Double Rose.
1,000 Paeony, Double Chinese.
500 P. L. Birch, 5 to 6 ft.
20,000 American and European Mt. Ash, transplanted, $\frac{1}{2}$, $\frac{2}{3}$, $\frac{3}{4}$ and 4 to 5 ft.
10,000 Horse Chestnut, transplanted, $\frac{2}{3}$ and $\frac{3}{4}$ ft.

✻ GARDNER & SON, Osage, Iowa.

Apple, Peach, Cherry, Plum and Shade Trees

JAPAN PEAR,

Apple and Russian Mulberry Seedling.

Hydrangea, Althea and other Shrubs.

NORTH TOPEKA NURSERIES,
A. L. BROOKE, Proprietor,

NORTH TOPEKA, KANS.

When writing to advertisers mention The National Nurseryman.

J. & P. Own Root Roses have an unequalled reputation for universally giving satisfaction. There are none like them. Plenty of southern grown, field-rooted roses may be bought at less price, but their growth is all above ground. They do not have the roots that J. & P. Roses have. Good cultivation, heavy fertilization and careful grading have made J. & P. Roses prized above all others. *Send for list of varieties and prices.*

J. & P. Clematis are also unsurpassed. We are by far the largest growers of Clematis in this country, if not, indeed in the world. Our plants this year are even stronger than usual. *Varieties: Henryii, Jackmanni, Languinosa, Candida, Mme. Baron Veillard, Mme. Ed. Andre, Paniculata, Ramona, etc.*

Read what is said of J. & P. Roses and Clematis by the most particular buyers in this country:

ROCHESTER, N. Y., October 7, 1898.

Messrs. Jackson & Perkins Co.,
Newark, N. Y.

Gentlemen:

Referring to our recent correspondence in regard to the Yellow Rambler Roses would say, we have compared the sample received from (a leading firm) with your plants received a day or two ago and agree with you that yours are worth the extra price, and, as covered by another letter have given you an order for an additional thousand. In this connection, we also wish to take the opportunity of complimenting you on the Roses that have already been received. We have not opened up everything, but those that we have seen are unusually fine, good roots, good, clean, healthy stock. The Clematis are also extra fine and in fact, we haven't seen anything yet to make a kick on.

Yours truly,

CHASE BROS. COMPANY.

Send for our Price List which also offers, in good assortment, a fine stock of

Ornamental Trees, Currants, Plums,
Ornamental Shrubs, Gooseberries, Peaches,
Herbaceous Plants, Blackberries, Quinces.
Special bargains in Currants, Gooseberries, Peaches and Quinces.

Are you handling our three specialties?

Yellow Rambler Rose, Cumberland Raspberry
and Iceberg Blackberry.

If not, why not? Send for sample plates and circulars. They are sellers.

CAUTION.—All persons are warned against purchasing any blackberry plants said to be of the white variety "Iceberg," originated by me, except the stock offered by Jackson & Perkins Co., of Newark, New York, whom I have appointed my sole agents for the propagation and introduction of said blackberry, and in whose hands I placed my entire stock.

LUTHER BURBANK, Santa Rosa, California.

JACKSON & PERKINS CO., Newark, N. Y.

KLONDIKE PEACH,

NAMED AND INTRODUCED BY

J. G. PATTERSON & SONS.

Placed at the Head of all Fancy, Late Market Peaches, by America's Highest Authorities.



Most beautiful late white peach in existence, says PROF. S. B. HEIGES, ex-Pomologist, U. S. Dept., Agriculture.

Sold Klondikes at 40 cents per one-half peck. Steadley and Smock brought only half that price.—WM. FREY, Fruit Grower, Pa.

Certainly a very handsome peach, possessing excellent quality, would assuredly command top figures in market.—J. W. KERR, Plum Specialist, Md.

Klondike is certainly the largest and best white fleshed peach I know of.—J. H. HALE, Peach King of America.

Klondike is as fine a white peach as we have ever seen at this season of the year. Would like to have your lowest price for 5,000 buds next season.—W. M. PETERS' Sons, Nurserymen, Md.

Fruit has never shown any indications of smut, mildew, black specks or cracking.

We have a good stock of this wonderful money maker, and will offer trees to the trade, for a short time only, at very moderate rates.

Also Large Assortment of PEACH and JAPAN PLUM TREES.

Let us make you prices on Car Load Lots.

J. G. PATTERSON & SONS,
Stewartstown Nurseries,

STEWARTSTOWN, PA.

When writing to Advertisers mention The National Nurseryman.

When writing to Advertisers mention The National Nurseryman.

FRENCH FRUIT TREE AND NURSERY STOCKS.

APPLE, ♦ PEAR, ♦ PLUM, ♦ CHERRY, ♦ QUINCE.
FOREST TREE SEEDLINGS AND ORNAMENTALS.

FROM LENAULT HUET, USSY, CALVADOS, FRANCE.

FOSTITE, to prevent Mildew and Black Rot on Grapes, Gooseberries, Potatoes, Tomatoes, Cabbage, Roses, etc.
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First class stock at reasonable prices, in large or small quantities. Apple grafts made to order. Shade Trees, Forest Seed-

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As Foreman or Manager of Nursery. Life experience with some of the largest firms in the United States, and have a thorough practical knowledge of all the details of the business, and for the past six years have had charge of a large concern. Position desired for this fall or next spring. Best of references as to character and ability.

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150,000 CURRANTS, 2-1,	50,000 DEWBERRY PLANTS,
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A valuable novelty. Specimens of fruit showing three stages of maturity were exhibited at the meeting of the Georgia State Horticultural Society at Americus, Ga., Aug. 3d, 1898, and attracted much attention.

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150,000 Amoor Privet—Unsurpassed as an evergreen hedge plant.
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Two Acres in Canna.

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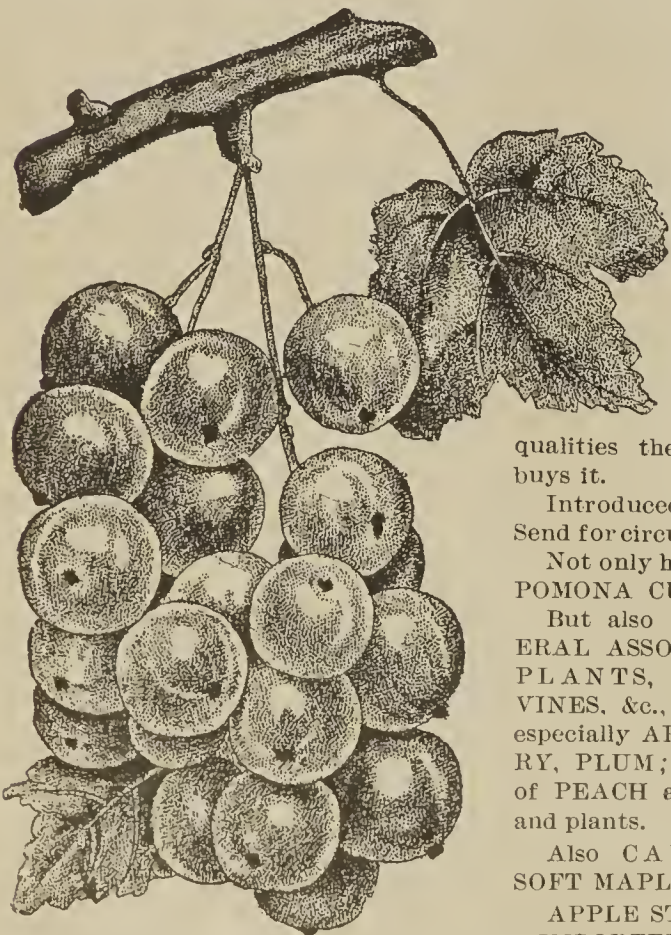
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We grow trees for quality rather than quantity. Our customers say they give good satisfaction. If you want good trees, true to name, lower than such stock can be grown at a profit, write us how many and varieties wanted. We shall not continue this sort of business indefinitely.

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Peach and Japan Plum Buds in large assortment.

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100,000 Palmer, Gregg, Ohio,
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Special low prices on European Plums, Standard and Dwarf Pears. Correspondence solicited.

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*Keiffer Pear Seedling,
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For Park and Street Planting.

American, Scotch and English Elm, Silver, Sugar
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Extra Size, 6 to 20 feet, 1 to 6 inches.

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Sweet and Sour Cherries,
Quinces, Apples, Peaches,
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Large, perfect shape
vigorous, prolific,
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Best varieties **Straw-
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Apple and Plum Trees**
Peaches grown from nat-
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Write for latest catalog—FREE
HARRISON'S NURSERIES,
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Strawberry Plants.

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The finest quality yellow peach in
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Asparagus roots; new prod-
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Carrie.
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ONE YEAR. 6 VARIETIES.

**Columbian, Mammoth White, Donald's Elmira,
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Plum or Peach Roots

**Abundance, Charlotte, Millard and
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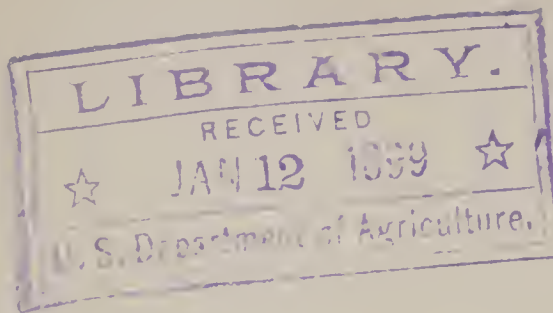
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All Trees fumigated.



January, 1899.

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Complete Record of all Legislation Affecting Nursery Interests.
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The only thoroughly up-to-date compilation of these laws, arranged with special reference to the needs of the Nurserymen. A necessity in every nursery office in these days of restrictive legislation. Gives full information regarding certificates to be attached to stock, inspection, penalties, etc.

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Standard Pears, European Plums,
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Standard and Dwarf Apples, Crabs,
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Dormant H. P. and Tea Roses on own roots.

Send your want list to us before placing your order. We will please you not only in price and quality of stock, but also with satisfactory dealings in every respect.

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200,000 Peach Trees, 100,000 Blackberry,
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Eldorado, Maxwell and Lucretia Blackberries.

MILLER, LOUDON and
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TRIUMPH,
GREENSBORO and EMMA,

Raspberries.

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Peaches

PLUMS. . . . AND OTHER FRUIT.

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44 Greenhouses.

1000 Acres.

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Pear
Peach
Plum
Cherry
Mulberry
Quince, Etc.

OF THE ABOVE WE WOULD CALL SPECIAL ATTENTION TO OUR VERY LARGE SUPPLY OF

Apple
European Plum
and

Sweet and Sour Cherry Trees.

BY FAR THE LARGEST ASSORTMENT THAT WE EVER HAD TO OFFER TO THE SPRING TRADE.

Currants,



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Blackberries
Raspberries
Strawberries
Grape Vines
Etc. . .

Carolina and other Poplars—6 to 8, 8 to 10, 10 to 12, and 12 to 15 ft.

Sycamore—European; 6 to 8, 8 to 10 and 10 to 12 ft.

Magnolias—Acuminata, Soulangeana and others; 2 to 10 ft.

Maples—Norway, Silver, Sugar, etc.; all sizes, 6 to 25 ft.

Catalpas—Speciosa, Tea's Japan, Bungei, etc.; 6 to 12 ft.

Mountain and European Ash—6 to 15 ft.

Elms—American White, Scotch, etc.; 6 to 25 ft.

Linden—European, American and Silver; 6 to 12 ft.

Tulip Trees—6 to 15 ft.

Willows—Gold Bark, Laurel Leaved, etc.; 5 to 15 ft.

WEeping TREES.

Mulberry—Tea's Weeping; strong 1 and 2 year heads. No finer lot in the country.

Willows—Kilmarnock and New American; strong 1 and 2 year heads; straight smooth bodies.

Willows—Wisconsin and Babylonica; handsome shapely trees, 5 to 15 ft.

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Deciduous and Climbing Shrubs—Acres of them.

Evergreen and Evergreen Shrubs—In large quantities.

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FORTY-FOUR GREENHOUSES filled with Roses, Palms, Ferns, Ficus, Azaleas, Araucarias, Geraniums, and other things too numerous to mention.

Write us your wants and we will quote you bottom prices. Trade List and Catalogue free.

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Fine stock of Gooseberries and Currants.

Wholesale catalogue mailed free on request.

FOR FALL '98 AND SPRING '99.

- 20,000 Kenyon Red Raspberry.
- 20,000 Turner,
- 300,000 Elm, 1 year,
- 25,000 Silver Maple, 3 to 4 ft.,
- 75,000 Berberry, 1, 2 and 3 years old,
- 5,000 Picea Pungens, transplanted, 18 to 24 in.
- 10,000 " " " 12 to 18 in.
- 25,000 " " " 8 to 12 in.
- 50,000 " " seedlings, 2 years, 2 to 4 in.
- 50,000 Ponderosa Pine, " " 4 to 6 in.
- 1,000 Paeony, Double Rose.
- 1,000 Paeony, Double Chinese.
- 500 P. L. Birch, 5 to 6 ft.
- 20,000 American and European Mt. Ash, transplanted, $\frac{1}{2}$, $\frac{2}{3}$, $\frac{3}{4}$ and 4 to 5 ft.
- 10,000 Horse Chestnut, transplanted, $\frac{2}{3}$ and $\frac{3}{4}$ ft.

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Apple, Peach, Cherry, Plum and Shade Trees

JAPAN PEAR,

Apple and Russian Mulberry Seedling.

Hydrangea, Althea and other Shrubs.

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AMPELOPSIS VEITCHII. A tremendous stock of extra fine plants. Prices much reduced to get part of them placed early.

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ORNAMENTAL TREES. **Catalpa**, **Cytissus Laburnum**, **Elm**, **Euonymous**, **Magnolias**, **Maple**, (**Ash-Leaved**, **Norway**, **Silver**, **Sugar**), **Mt. Ash**, **Mulberry**, **Tulip Tree**, etc.

CURRENTS and GOOSEBERRIES. Extra fine stock of these and prices as low as the lowest.

PEACHES. Large assortment of varieties. Prices to suit the times.

Send for our price list which also offers a good assortment of **Apples**, **Cherries**, **Plums**, **Pears**, **Quinces**, etc., etc., etc.

Are you handling our three specialties?

YELLOW RAMBLER ROSE,
CUMBERLAND RASPBERRY
AND ICEBERG BLACKBERRY.

If not, why not? Send for sample plates and circulars. They are sellers.

CAUTION.—All persons are warned against purchasing any blackberry plants said to be of the white variety "Iceberg," originated by me, except the stock offered by Jackson & Perkins Co., of Newark, New York, whom I have appointed my sole agents for the propagation and introduction of said blackberry, and in whose hands I placed my entire stock.
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NAMED AND INTRODUCED BY

J. G. PATTERSON & SONS.

Placed at the Head of all Fancy, Late Market Peaches, by America's Highest Authorities.



Most beautiful late white peach in existence, says PROF. S. B. HEIGES, ex-Pomologist, U. S. Dept., Agriculture.

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Klondike is as fine a white peach as we have ever seen at this season of the year. Would like to have your lowest price for 5,000 buds next season.—W. M. PETERS' Sons, Nurserymen, Md.

Fruit has never shown any indications of smut, mildew, black specks or cracking.

We have a good stock of this wonderful money maker, and will offer trees to the trade, for a short time only, at very moderate rates.

Also Large Assortment of PEACH and JAPAN PLUM TREES.

Let us make you prices on Car Load Lots.

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No. 1 Branched and Straight roots.

HONEY LOCUST and RUSSIAN MULBERRY SEEDLINGS.

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Successful Correspondent with wide experience handling agents, would like to make arrangements with grower of stock to handle a retail branch.

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 SURPLUS OF

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There is a great demand for Root Grafts
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Strong and handsome for farm fencing. Hardy for cold climates.

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Best varieties **Straw-
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Peaches grown from nat-
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